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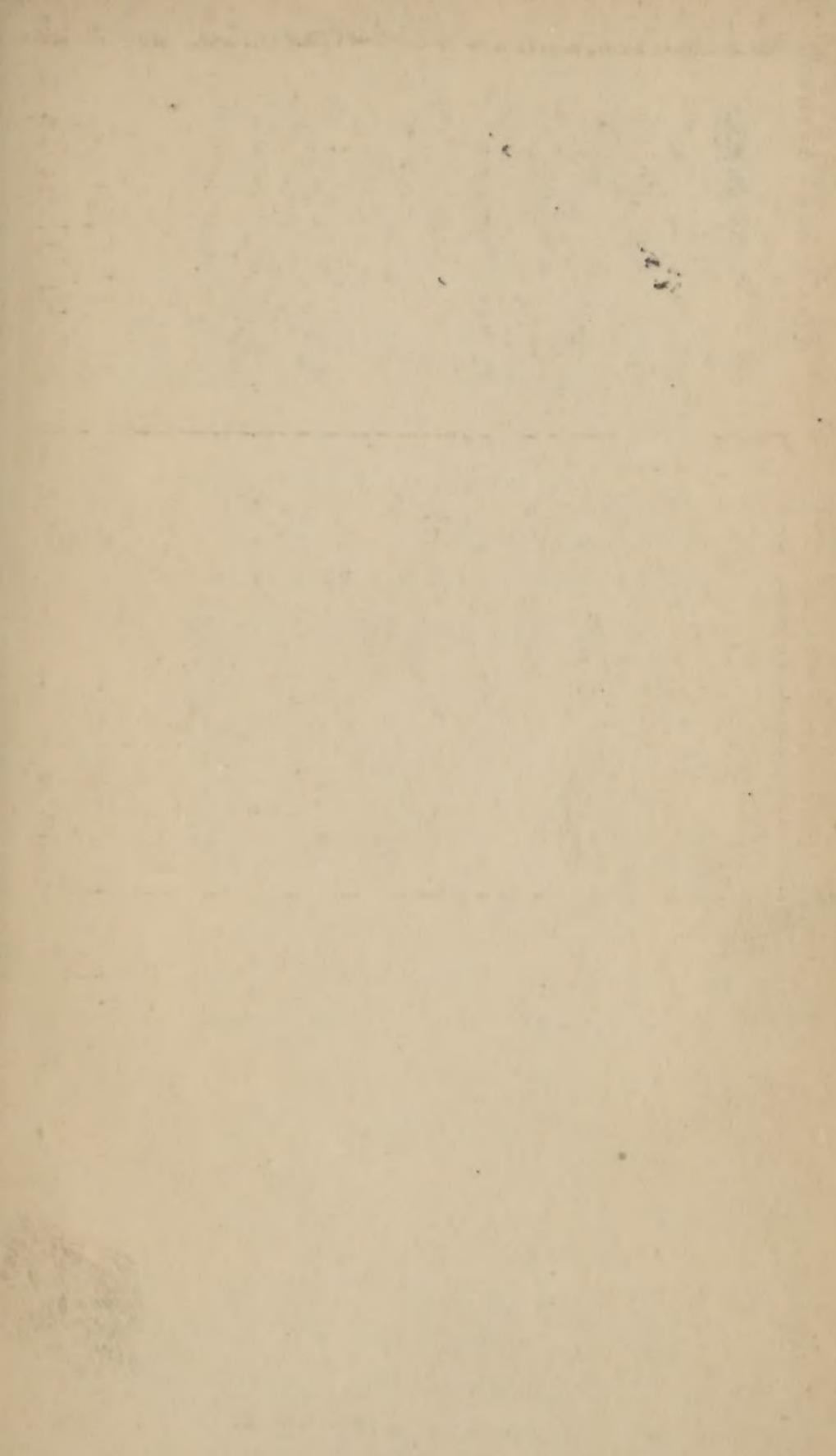
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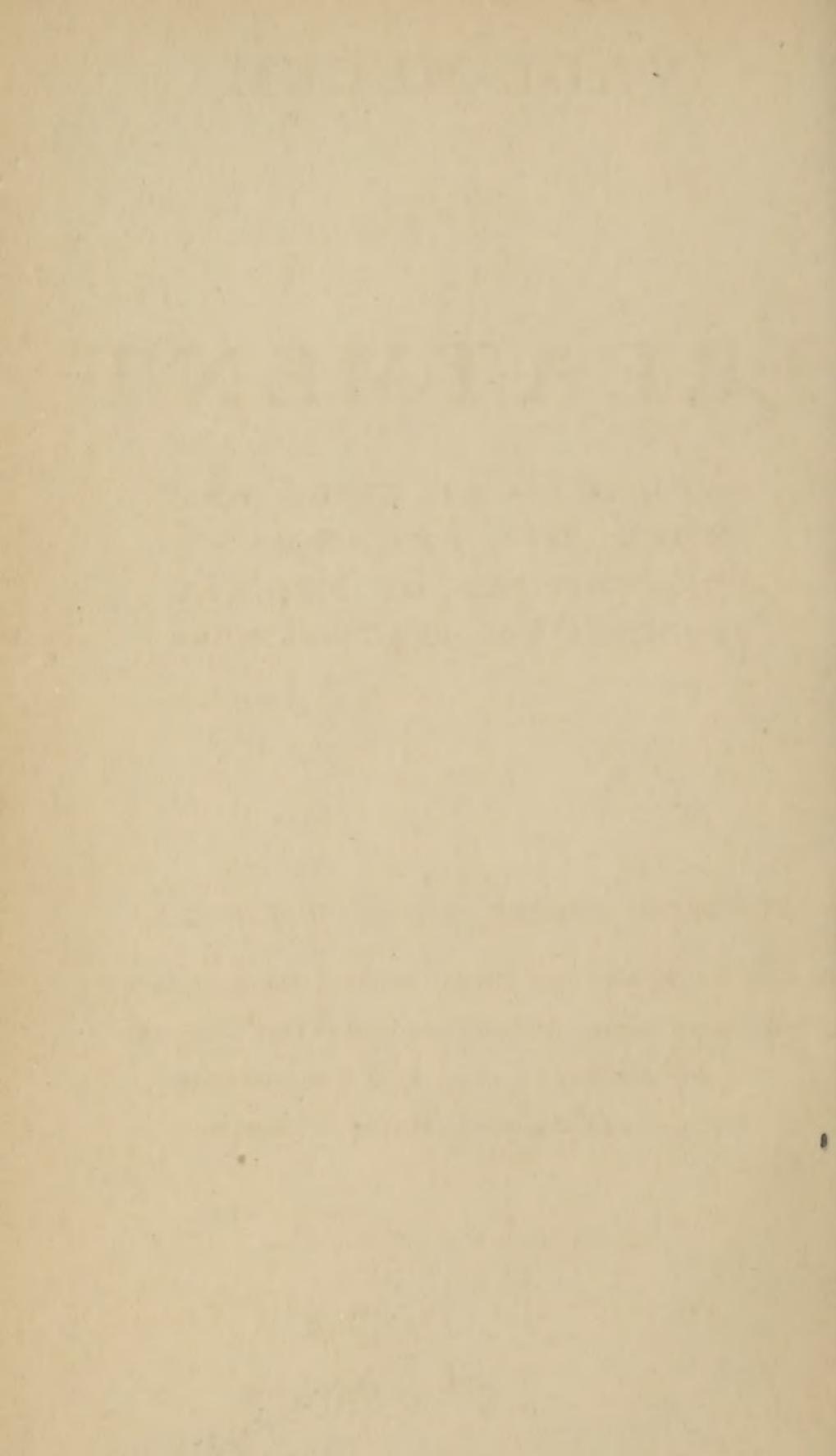
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VADE-MECUM

OF

TREATMENT

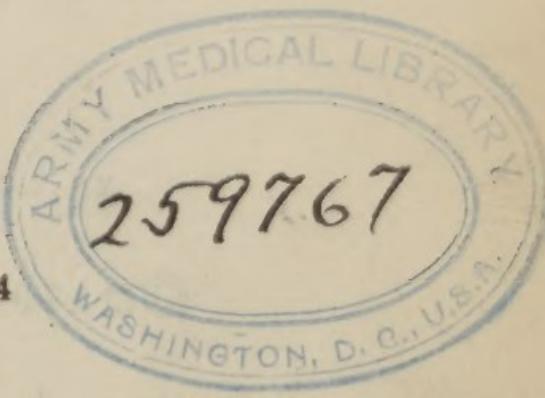
A PRACTICAL GUIDE AND
INDEX OF TREATMENT
FOR THE USE OF MEDICAL
STUDENTS AND PRACTITIONERS

BY

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PREFACE TO THE FIRST EDITION.

In the compilation of this vade-mecum, the authors have aimed at utility rather than originality. Indeed, in the department of therapeutics, originality is justly regarded with a considerable degree of suspicion. The proper scientific attitude towards all new claims for cures, is one of the strictest scepticism. Drugs which were once much vaunted, often "have their little day, then cease to be," after a short vogue. One cannot but sympathize with the witty French professor who, when lecturing to medical students, would say, whenever he had occasion to speak of a new drug, "Gentlemen, it would be well for you to employ this remedy while it is still curing."

In assessing the value of a new remedy, so much depends upon the personal equation of both patient and physician, as well as on the proper diagnosis of the disease which it is alleged to cure, that the general practitioner, and more especially the young physician for whom this work has been specially written, would be well, at least until he has gained a considerable amount of experience, to restrict himself to the old-established methods

and materials which have stood the test of time. Nor should it be forgotten that in most diseases there is usually a tendency for the patient to return to his normal condition without the exhibition of any drugs, and what we are often vain enough to claim as the result of our own ability, may be merely due to the *vis medicatrix naturæ*.

In our treatment of the different diseases we have endeavored in every case to give a suitable prescription. The patient usually expects this; indeed often regards it as the most important part of the treatment, and would be disappointed if one were not left behind by the physician. It is, however, hardly necessary to remind even the youngest practitioner that rest, proper diet, exercise, change of air, etc., are as effective as the exhibition of drugs, in many cases indeed, much more so. We have now got beyond the ideas of former days, ridiculed by Moliere and Voltaire, when the public, aided and abetted by the medical faculty itself, imagined that the practice of medicine should consist merely in giving certain drugs. The doctors of Voltaire's time, as that philosopher put it, "simply poured drugs, of which they knew little, into human bodies, of which they knew still less."

Every prescription inserted here has been thoroughly tested by the authors themselves in their practice both at home and in the tropics. No apology need be offered for dealing in so much detail with tropical diseases. Our present relations with Cuba, Porto Rico, Panama, Hawaii, Guam and the Philippines, render this as imperative now in an American hand-book as it has long been in British medical treatises.

It is possible that our inclusion of symptoms, such as biliaryness, headache, etc., along with diseases, may meet with criticism in some quarters, but our aim has

been to prepare a hand-book which will be practical and useful, rather than scientifically accurate in all details, and, therefore, useless for the purpose intended.

Criticisms, corrections and suggestions will be gladly received for the use of future editions.

E. C. SEUFERT.

2444 N. Kedzie Boul., Chicago,

May 1, 1908.

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REPLACES

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PREFACE TO THE SECOND EDITION.

The great and unexpected demand for this small textbook amply demonstrates the fact that it supplies a long-felt want among medical students, and more especially among country practitioners whose numerous orders from all parts of the United States speedily exhausted the first edition. The authors most cordially thank those correspondents who have kindly favored them with suggestions, some of which have been acted upon in the present volume. We also thank Mr. Joseph A. Hellmuth for the thorough manner in which he has overlooked all of the prescriptions from a pharmaceutical standpoint.

EDWARD C. SEUFERT.

April 1, 1911.

PREFACE TO THE THIRD EDITION

It affords the author much pleasure to note that a Third Edition of this little book has become necessary. It has also been gratifying to receive the many favorable comments from physicians in the service of the U. S. Army and U. S. Navy, who found it necessary to dispense with bulky treatises, and found "Vade Mecum" an ever present help.

EDWARD C. SEUFERT.

May 1, 1919.

PREFACE
To the Fourth Edition

The purpose of this little book is set forth in the preface to the first edition.

The demand for it having again exceeded the supply, another edition becomes necessary. Some minor changes, in the subject matter, were made by Dr. Seufert, whose death occurred before the work was finished. I have drawn other new matter from Current Medical Literature; ever keeping in mind the fact that the book must be inexpensive, and small enough to be carried in the pocket or hand bag of the busy practitioner.

CHAS. W. WARNER

April 8, 1924

VADE-MECUM
OF
T R E A T M E N T
ALPHABETICALLY ARRANGED

ABORTION, HABITUAL.

If the abortion is due to syphilis, do not allow the patient to become pregnant until the completion of two years' treatment for syphilis. Give for the first year:

R. Hydrarg. bichlor gr. iss
Syr. sarsapar. co q. s. ad ʒ vi

M. Sig. One teaspoonful three times a day.

Gradually increase the above dose until $\frac{1}{4}$ gr. of hydrarg. bichlor. is taken three times a day.

Or:

R. Pil. hydrarg. proto-iodid gr. $\frac{1}{4}$
No. C.

Sig. Begin with one four times a day, and increase until four grains a day are taken.

For the second year give:

R. Potass. iodid ʒ i
Aquaæ ʒ ii
Elixir digestiv. co. N.F. q. s. ad ʒ vi

M. Sig. One teaspoonful in a glass of hot water after each meal.

Or:

R. Sol. potass. iodid. sat ʒ ii

Sig. Ten drops three times a day in hot water.

If the abortion is due to lacerations of the cervix sew them up.

If it is due to displacements of the uterus, correct them by pessary, or by shortening the supporting ligaments.

In all cases of habitual abortion the patient should do her housework, and not lie on sofa or sit about under the impression that she is a confirmed invalid. Moderate physical exertion is always beneficial. Sexual excesses should be avoided.

ABORTION, INDUCTION OF.

Abortion should never be resorted to unless after consultation, and then only to save life. Abortionists and irregular midwives use as their routine abortifacient, quinine and ergotin of each two grains in pill form every three hours. The life of the patient is endangered by this method, because of the violent irritation necessary to expel the contents of the uterus. When abortion is absolutely imperative, the regular practitioner usually resorts to dilatation of the cervix, and rupture of the membranes under the strictest antiseptic precautions, by passing a sound into the uterine cavity.

Then encourage uterine contractions by hot mustard sitz baths and give the following internally:

- | | | |
|----|---|--------------|
| R. | Fluidextr. ergot..... | 3 <i>i</i> |
| | Fluidextr. gossypii radic..... | 3 <i>ss</i> |
| | Tinct. cinnamom. q. s. ad..... | 3 <i>iii</i> |
| M. | Sig. One teaspoonful in water, three times a day. | |

ABORTION, INEVITABLE.

If there is considerable haemorrhage, and the cervix has not yet dilated, pack the vagina with anti-septic gauze. Give fluidextract of ergot in thirty drop doses every three hours, and morphine sulphate ($\frac{1}{4}$ gr.), when there is severe pain. Next morning the ovum with membranes can usually be readily peeled out with the finger. If not, pack again. Do not curette unless fever is present.

After-treatment. Rest in bed for three or four

days. Light nourishing diet. Hot douches with carbolic acid (one drachm to a quart of water) three times a day. Give the following tonic:

R.	Mass. ferr. carb.....	ʒ ii
	Strych. sulph.....	gr. $\frac{2}{3}$
	Mangan. dioxid.....	grs. xii
	Acid. arsenios.....	gr. $\frac{1}{4}$
	Aloin	gr. iv

M. et ft. caps. No. xxiv.

Sig. One three times a day, after meals.

ABORTION, PREVENTION OF.

When patient has uterine contractions and haemorrhage, put to bed at once and give hypodermically morphine sulph. ($\frac{1}{4}$ gr.) with atropin sulph. ($\frac{1}{60}$ gr.). Repeat in four hours by mouth if necessary. Do not give hot douches. Apply heat to lumbar region. Viburnum prunifolium is a useful uterine sedative and tonic:

R.	Fluidextr. viburn. prunif.....	ʒ iss
	Tinct. cinnamom	ʒ iss
M.	Sig. One teaspoonful every three hours, in hot water.	
Or:		
R.	Elix. viburn. opul. comp. N. F	ʒ iv
	Sig. One teaspoonful in hot water every three hours.	

ABRASION.

Cut away ragged edges with scissors and clean thoroughly with a two per cent solution of carbolic acid (about one drachm in six ounces of water). Then dry the wound, apply powdered stearate of zinc, and seal with cotton and collodion. If abrasion is extensive, clean as above and apply iodoform gauze, and bandage. After several days change dressing and apply:

R.	Unguent. resorcin. co. N. F.....	ʒ ii
	Sig. Use once a day.	

ABSCESS, PREVENTION OF.

Locally. Abort formation of abscess by ice-bag in conjunction with:

R. Liq. plumb. subacet.

Tinct. opii.....āā ʒ viii

M. Sig. Add two ounces to one pint of water, saturate gauze with solution, and apply to inflamed area.

Internally. Give aperients and calcium sulphide:

R. Calc. sulphid grs. vi

Sacchar. lact..... grs. xxxvi

Div. in caps. No. xviii.

Sig. One every three hours.

ABSCESS, TREATMENT OF.

The treatment varies with the location. Pus should be evacuated no matter where it occurs. The abscess should be freely incised at the most dependent portion and packed with iodoform gauze daily. Curettage and squeezing should be avoided. When the discharge begins to lessen the cavity may be swabbed out with tincture of iodine daily, and repacked with gauze until it closes. If abscess is large, especially in children, tonics are indicated.

For a child of five years:

R. Syrup. hypophosph..... ʒ vi

Sig. One teaspoonful three times a day.

For adults:

R. Syr. hypophosph. co..... ʒ vi

Sig. Two teaspoonfuls four times a day.

ACCOMMODATION, FAILURE OF.

Treat presbyopia by ordering convex glasses which will enable the patient to read at nine inches or a greater distance. The smaller the quantity of accommodation remaining, the less is the range of clear vision; and if accommodation is abolished, clear sight is possible only when the object is at the focus of the glasses. Hence the increase of strength of the glasses, which becomes necessary as age advances, should be made gradually that the patient may grow ac-

customed to the loss of range, and to the necessity for keeping his book more and more at an unvarying distance. As the book has to be placed nearer by artificial light, than by daylight, it is best to have a rather stronger pair of glasses for evening use than for the daytime.

ACETANILID HABIT.

Usually easy to cure. Patient must assist. Temporarily substitute codein or chloral at bedtime to procure sleep, then gradually withdraw all hypnotics. Strengthen the system with tonics as:

R. Elix. ferri, quin. et strych..... ʒ iv
Sig. One teaspoonful in water after each meal.

ACETANILID POISONING, ACUTE.

Wash out the stomach. Give a saline cathartic and support the heart by strychnine, strophanthus, or nitro-glycerin:

R. Strych. sulph..... gr. $\frac{2}{3}$
Nitroglycerin gr. $\frac{1}{4}$
Spts. vini gall..... ʒ iii

Sig. Give one teaspoonful hypodermically, or by mouth every 3 hours.

If cyanosis and severe dyspnoea are present, bleed and give an injection of one pint of physiologic salt solution (six-tenths per cent of sodium chloride), hypodermically.

See Bleeding, Practical Directions For.

ACHYLIA GASTRICA (ABSENCE OF HYDROCHLORIC ACID).

Diet. Meat finely divided, puree soups, green vegetables, cream, butter, anchovy paste, caviar in small quantities, eggs with milk, stale bread or toast. Water relieves the pain. On account of the absence of hydrochloric acid in the stomach, it should be supplied with pepsin and a bitter tonic:

- R. Acid. hydrochlor. dil..... 5vi
 Pepsin C.P..... 5i
 Tinct. nuc. vom..... 5iv
 Elix. gentian. glycerin. q. s. ad..... 5iii
 M. Sig. One teaspoonful in water after each meal.
 Lavage with a hot physiologic salt solution is useful. This should be followed by faradism, one electrode being in the stomach with about half a pint of salt solution, and the other on the epigastrium. If diarrhoea complicates the condition give:
 R. Salol 5ii
 Bismuth. subcarb..... 5iss
 M. et ft. chart. No. xxiv.
 Sig. One four times a day.

ACIDITY, GASTRIC. (HYPERCHLORHYDRIA.)

The patient should have nitrogenous foods in small quantity, but good quality, and well cooked for easy digestion. He should avoid new bread, pastry, and vegetables. He should masticate his food thoroughly and beware of overeating. Cream and butter may be taken freely, but starchy foods should be taken cautiously, and should be well cooked. If there is a large amount of fermentation, lavage should be employed. Opium should be avoided in the treatment unless the pain is very great. The pain is often relieved by eating, or by increasing the number of meals.

Medicinal treatment. For the "sour stomach" of children a tablespoonful of liq. calcis may be given with milk, every two hours. It prevents the rapid formation of casein and assists in digestion. For adults, give:

- R. Sodii bicarb..... 5ii
 Spt. ammon. aromat..... 5ii
 Tinct. zingiber..... 5i
 Infus. gentian. co. q. s. ad..... 5viii
 M. Sig. One tablespoonful after each meal.
 Or:

R.	Sodii bicarb.....	5i
	Pulv. ligni.....	grs. xxx
	Zingiber	grs. xii
	Magnes. sulphat	5i
M. et ft. chart.	No. xii.	
Sig.	One after each meal.	

ACIDS, CORROSIVE, POISONING BY.

(Hydrochloric, nitric, sulphuric, oxalic.)

Do not use stomach tube or emetics. Neutralize acid by whiting, chalk, wall-plaster, washing soda, potassium carbonate, magnesium carbonate, or soap mixed with plenty of water.

Next give olive oil, thick gruel or milk and egg. Diminish shock and ease pain by hypodermic injection of morph. sulphat. ($\frac{1}{3}$ gr.) Sustain patient with predigested meat or nutrient enemata.

See also Carbolic Acid Poisoning and Prussic Acid Poisoning.

ACNE VULGARIS

Dietetics, cold bathing, medicines to improve the circulation and digestion, mechanical contrivances to stimulate the over-distended glands to contraction, are of much greater importance than the application of salves and lotions to the face. If the circulation is poor, as shown by coldness and clamminess of the hands and feet, give:

R.	Sodii bromid.....	5iv
	Infus. digital. fol. q. s. ad.....	3vi
M. Sig.	One tablespoonful three times a day.	
If tongue is coated and appetite poor give:		
R.	Tinct. nuc. vomic.....	5iv
	Tinct. gentian. comp	5ii
	Tinct. quassiae	5ii
	Elix. digestiv. co. (N.F.) q. s. ad.....	3iii
M. Sig.	One teaspoonful in a wineglassful of water before each meal.	

If constipation is present, give a capsule containing:

R.	Extr. cascarr. sagrad	gr. i
	Extr. nuc. vomic.....	gr. $\frac{1}{8}$
	Extr. belladonn. fol.....	gr. $\frac{1}{8}$
	Pulv. ipecac	gr $\frac{1}{8}$
	Podophyll. resin	gr. $\frac{1}{8}$
	Aloin.....	gr. $\frac{1}{10}$

M. et ft. caps. No. 1.

Sig. One or two at bedtime.

If anaemia or disordered menstruation is the cause, give:

R.	Mass. ferr. carb. (Blaud's mass).....	3ii
----	---------------------------------------	-----

Div. in caps. No. xxiv.

Sig. One after each meal.

Local treatment. The face should be thoroughly washed every night with any good soap. Washing the face with cold water is one of the best tonics for the skin that we possess. The face should be pinched and rubbed between the finger and thumb every night for at least five minutes. An inflammatory process results but this is very desirable. Sulphur is one of the oldest and best preparations for local use. It checks the formation of pustules, and causes the redness to subside. "Lotio alba" is one of the most common preparations in use, its composition is:

R.	Potass. sulphurat	3i
	Zinci sulphat.....	3i
	Glycerini	3i
	Aquaæ rosæ q. s. ad.....	3iv

M. Sig. Shake well, apply to skin and allow to dry.

Frequently a more stimulating application is necessary. Vleminckx' solution is very good. It should be used carefully as it may inflame the skin and cause pain. Its formula is:

Calcis (freshly slaked).....	3ss
Sulphur. sublim	3i
Aquaæ destillat	3x

M. Boil with constant stirring until the mixture has evaporated to six ounces, then strain.

Sig. Use several times a week.

Steaming of the face does harm.

In recent years X-ray exposures have cured many stubborn cases and should be tried. The X-ray causes a partial atrophy of the sebaceous glands and checks pus formation.

A sharp curette may be used vigorously on the face to remove pustules and oily material. Inoculation by bacterial vaccines has also proved very effective, although it is still beyond the reach of the general practitioner.

ACNE ROSACEA.

Look for cause and treat it e. g. gastro-intestinal disturbance, constipation, uterine or ovarian irritation, gout, rheumatism, lithæmia, anæmia, plethora, tuberculosi s, etc. Regulate diet. Forbid highly seasoned stimulating foods, cheese, oatmeal, sweets, pastries, and nuts. Stop beer, whisky, and all sweet beverages, but a light claret may be allowed at meals if desired. Forbid tea, unless weak and freshly made, and allow coffee, but without milk.

Internal remedies. In early cases, diuretics such as the citrate of potash and saline purgatives may be used to divert the blood to some other part of the body. When the redness has not become persistent the mineral acids are useful:

R. Liq. acidi arsenios m. xxx

Acidi hydrochlor. dil. 5iv

Tinet. gentian. co. q. s. ad. 3iii

M. Sig. A teaspoonful in water after meals.

The above prescription is of value in acne rosacea associated with dyspepsia.

In acute cases characterized by hyperæmia and burning, the following soothing application may be used locally:

R.	Bismuth. subnitrat	grs. xxx
	Bismuth. oxychloratis	grs. xl
	Magnes. carbonat	gr. xx
	Aq. rosæ	5i

M. Sig. Use as lotion twice a day.

In acne rosacea of the chronic type, a more stimulating treatment is necessary to improve the vaso-motor tone of the blood vessels. For this purpose the following paste is useful:

R.	Resorcinolis	5i
	Ichthyoli	5ii
	Cerati	5vi

M. Sig. Apply freely every three hours until epidermis desquamates.

After the epidermis has desquamated, reduce the strength of the ointment to one-fourth and apply once daily.

The dilated blood vessels remaining after subsidence of the congestion should be destroyed by multiple scarification, electrolysis or the thermocautery. Large excrescences may be removed by the knife or the galvanocautery.

ACONITE POISONING.

Stomach tube or emetic. Tinct. of digitalis in 20 minim doses. Give stimulants for depression, or inject diluted brandy into the rectum. Recumbent posture. Artificial respiration and friction. Hypodermic injection of strychnin sulph. (60 gr.).

ACROMEGALY.

Treatment is symptomatic; extract of pituitary body may be tried. This extract will frequently cause the disappearance of the severe headache and nervous symptoms:

R. Pulv. glandul. hypophysis (hypophysin). 3iv

Div. in chart. No. xxiv.

Sig. One three times a day.

Rest in bed is very important during the exacerbations.

For the headache and pain in bones, give:

- R. Antipyrini..... 5ii
Sodii bromidi 5ii
Aquæ 3i
Syr. rub. idaei q. s. ad..... 3ii
M. Sig. One teaspoonful every three hours if necessary

ACTINOMYCOSIS.

Animals are more easily cured than man. Potassium iodide is almost a specific on animals, but is also of great benefit to man:

- R. Sol. potass. iodid sat..... 3iii
Sig. Use 15 drops in hot water three times a day. Gradually increase to 50 or more drops three times a day.

When abscesses form they should be freely opened, curetted and swabbed with tincture of iodine.

ADDISON'S DISEASE.

Attend to general health, rest in bed in advanced cases, nutritious nitrogenous assimilable diet. An absolute milk diet may be necessary. Drugs used: Iron, arsenic, strychnin. Extract of suprarenal gland cures a few and benefits many cases:

- R. Extr. glandul. suprarenal. sicc..... 3iv
Div. in caps. No. xxiv.
Sig. One capsule four times a day.
Bismuth, salol and cerium oxalate will control vomiting. For prescription, see Vomiting.
R. Ferr. reduct grs. xxiv
Strych. sulph gr. $\frac{1}{2}$
Acid. arsen gr $\frac{1}{2}$
M. Et ft. pil. No. xxiv.
Sig. One four times a day.

ADENITIS.

Treat the cause: diphtheria, scarlet fever, tuberculosis, etc.

The glands should be covered with cotton and a bandage, after the inunction of some ointment as:

R. Ungt. iodini ʒiv

M. Sig. Rub in thoroughly morning and night.

If much pain is present give:

R. Ungt. belladonn ʒii

Ungt. hydrarg ʒii

Lanolin ʒiv

M. Sig. Rub in thoroughly twice a day.

Internally give tonics as syrup ferri iodide, cod liver oil, malt, etc.

For an adult give:

R. Syr. ferr. iodid ʒii

Sig. One-half teaspoonful three times a day.

Or:

R. Syr. hypophosph. co ʒiii

Sig. One tablespoonful three times a day in water.

Plenty of fresh air, sunshine, cream, butter and other nourishing articles of diet should be recommended.

AFTER-PAINS (LABOR).

The following is a good prescription for the severe pains after labor, one or two doses being usually all that is required:

R. Morphin. sulph gr. i

Sodii bromid grs. lxxx

Chloral. hydrat ʒi

Aquæ ʒiv

Syrup. aurant. q. s. ad ʒi

M. Sig. One teaspoonful every three hours if necessary.

AGALACTIA (See Suppression of Milk).

AINHUM.

Earlier stages. Process of strangulation may be arrested by division of the constricting ring.

Later stages. When the affected little toe becomes useless and is the source of pain or inconvenience, it should be amputated.

Last stages. The disease usually ends in spontaneous amputation, though it may take ten years to do so.

ALBUMINURIA.

General treatment. Patient should lead a quiet life, without worry or excitement. He should live in a warm, dry house, preferably on gravel, and in a warm, dry, equable climate. Warm clothing should be worn next the skin all the year round. He should also wear a body belt and sound boots and take every possible care to avoid catching cold. He should avoid alternately hot and cold baths, but may take warm baths, hot air, vapor or Turkish baths. Daily tepid sponging with friction of the skin is beneficial. Regular daily exercise should be taken, avoiding fatigue. He should maintain a free regular action of the skin, kidneys, and bowels.

In the special treatment of albuminuria, the cause must be sought and treated if possible. These may be (a) Congestion of the kidneys in its various forms, (b) All forms of nephritis, (c) Suppurative conditions, degenerations and neoplasms of the kidneys, ureters, bladder or urethra, (d) Acute infectious diseases, (e) Disorders of the blood, as in pregnancy pernicious anaemia, leukæmia, scorbatus, purpura, and poisoning by lead, mercury, or syphilis. (f) In certain abnormal conditions of the nervous system, such as apoplexy, cerebral concussion, tetanus, epilepsy, meningitis, and cephalic injuries.

There is also a functional or physiological albuminuria which is observed in certain persons in health after violent exertion, cold bathing, mental emotion, or over-eating, especially of nitrogenous food.

The main source of the albumin is nephritis, and can best be combated with potassium iodide.

R. Sol. potass. iodid. sat..... ʒi

Sig. 15 drops in hot water three times a day after meals.

Where sufficient urine is not being excreted, give:

- | | | |
|----|---|------|
| R. | Potass. acet | 5iii |
| | Potass. citrat | 5iv |
| | Aquæ | 5iss |
| | Syr. ac. citric. q. s. ad..... | 5iii |
| M. | Sig. One teaspoonful every four hours in hot water. | |

ALBUMINURIA, DIET IN.

The following articles of diet should be forbidden:
Ices, pastry, sweet foods generally; new bread, beef tea, meat essences, jellies, highly spiced foods, pickles and sauces; rich foods such as hare, duck, and goose; and lastly, cheese.

The following articles may be taken in moderation:
Potatoes, peas, beans, bacon, eggs, red wine, freely diluted with water.

The following articles may be allowed: Soups, thickened with arrowroot, vermicelli, rice or barley; fish, fowl, pigeon, game, lamb, tripe, sweetbread, calf's head, cow-heel, butter, cream, green vegetables, celery, onions, salads, mushrooms, artichokes, cauliflower, turnips, milk (plain or peptonized), skim milk, whey, koumiss, farinaceous foods, such as stale bread, toast, rice, tapioca, sago, vermicelli, arrowroot, macaroni, tea, cocoa, coffee, soda water, seltzer, Vichy.

ALCOHOLISM, ACUTE.

Wash out the stomach. If there is extreme excitement, give:

- | | | |
|----|-----------------------------------|-----|
| R. | Chloral. hydrat..... | 5ii |
| | Sodii bromidi..... | 5i |
| | Potass. bromid..... | 5i |
| | Aquæ..... | 5iv |
| | Syr. aurant. cort. q. s. ad. | 5i |

M. Sig. One teaspoonful in water is usually all that is necessary.

If emesis is desired give apomorphine hydrochloride ($\frac{1}{6}$ gr.), hypodermically, or if patient is not too drunk, give a dessertspoonful of mustard in half a pint of hot water.

If extremities are cold, and collapse is threatened, give a hot bath and one-half to one drachm of aromatic spirits of ammonia. Give cardiac stimulants, such as strychnine, if necessary.

ALCOHOLISM, CHRONIC.

Withdraw the alcohol at once. Institution treatment is preferable. The indications are: to produce sleep, to allay nervousness and thirst, and to tone up the system with tonics and nutritious diet. For thirst, allow patient to sip ice-water, to suck a lemon, or give:

R.	Acid. sulphur. aromat.....	3iii
	Tinct. capsici.....	3iv
	Syr. aurant. cort. q. s. ad.....	3iii
M.	Sig. One teaspoonful in water every three hours.	
M.	For sleep. Trional or sulphonal may be given in 15 gr. doses and repeated once if necessary. Hydrobromide of hyoscine $\frac{1}{60}$ gr. also produces good results.	
	When convalescence sets in, give:	
R.	Liq. potass. arsenit.....	3i
	Tinct. nuc. vomic.....	3iv
	Elix. gentian. glycer. N. F. q. s. ad...	3iii
M.	Sig. One teaspoonful in water every four hours.	

ALKALIES, CAUSTIC, POISONING BY.

(Caustic potash, caustic soda, strong ammonia, soap lees.)

Do not use stomach tube, or give emetics. Neutralize alkali by vinegar, lemon juice, citric acid, or tartaric acid, all freely diluted.

After alkali is neutralized, give milk, olive oil, or white of egg. Hypodermic injection of morphine sulph. (gr. $\frac{1}{3}$) to relieve the pain. Stimulants for the prostration should be given.

ALOPECIA (BALDNESS.)

Improve the general health by Blaud's pill or arsenious acid. Wash the head frequently with warm water and castile soap. Massage the scalp frequently.

The underlying principle in the treatment of baldness is stimulation of the skin of the scalp by either massage or local stimulants which draw the blood by their irritation. The cause of baldness is frequently **Dandruff**, which see.

The hair should frequently be cut short, and the following rubbed on the scalp:

R.	Quin. bisulph.....	grs. xxx
	Tinct. myrrh.....	3iv
	Tinct. cantharid	3i
	Spiritus myrciae q. s. ad.....	3iv

M. Sig. Rub thoroughly into scalp at bedtime.

Or:

R.	Tinct. cantharid.	
	Tinct. capsici.....	aa 3ii
	Olei ricini.....	m. xv
	Ol. ros. geran.....	3ss
	Spts. vin. rect.....	3viii

M. Sig. Use at bedtime.

If the baldness is of syphilitic origin, potassium iodide and hydrarg. bichlor. should be given internally, in addition to the local treatment.

When the alopecia is due to derangements of digestion, the following bitter tonic should be given:

R.	Tinct. nuc. vomic.	5iv
	Acid. sulph. aromat.	3iii
	Tinct quass.	
	Tinct. gentian. comp.	
	Tinct. calumb.	aa 3ii
	Elix. digestiv. co. N. F. q. s. ad.....	3iii

M. Sig. A teaspoonful in a wineglass of water before each meal.

ALOPECIA AREATA.

Treat exactly like simple alopecia. The disease is probably an infection and should be treated accordingly:

R.	Hydrarg. bichlor.....	grs. xx
	Glycerin.....	3iv
	Acid. salicylic.....	5i
	Spts. myrciae q. s. ad.....	3xii

M. Sig. Apply to the bald spots night and morning.

AMBLYOPIA and AMAUROSIS.

If due to excessive use of tobacco, prohibit its use and give hot baths and strychnine sulphate ($\frac{1}{30}$ gr.) hypodermically, or by mouth, three times a day.

If due to lead poisoning, give hot baths and potassium iodide:

R.	Potass. iodid.....	5iv
	Aquaæ.....	3ii
	Elix. tarax. co. N. F. q. s. ad.....	3iii

M. Sig. One teaspoonful in hot water three times a day.

If due to uræmia do not treat the amblyopia directly, but the uræmia, which see. Vision returns as suddenly as it went.

If due to hysteria, treat that disorder.

AMENORRHEA.

Ascertain the cause then treat it. If due to anaemia give Blaud's pill, mangan. dioxid., potass. permanganat., or:

R.	Strych. sulph.....	gr. $\frac{2}{3}$
	Mass. ferr. carb.....	5ii
	Zinc. phosphid.....	gr. iss
	Aloin.....	gr. ii

M. et ft. caps. No. xxiv.

Sig. One after each meal.

If from pelvic congestion due to catching cold, give a saline purge with a hot sitz bath at bedtime, with 5 to 10 grs. of Dover's powder, or:

R.	Tinct. opii camph.....	3iv
	Quin. bisulph.....	grs.xx
	Syr. rhei aromat. q. s. ad.....	3iv

M. Sig. One tablespoonful three times a day.
For a simple atonic case, give:

R.	Tinct. ferr. chlorid.....	3iii
	Tinct. cantharid.....	3i
	Tinct. aloes.....	3iv
	Ammon. tinct. guiac.....	5xii
	Syr. simpl. q. s. ad.....	5vi

M. Sig. One tablespoonful three times a day.
When due to fear or excitement, give:

R.	Tinct. cardamom. co.....	3vi
	Tinct. opii.....	3i
	Elix. ammon. valerian q. s. ad	3ii

M. Sig. One teaspoonful every three hours.

If from insufficient flow of blood to the internal genitals, administration of yohimbin hydrochlor. is often of benefit, in $\frac{1}{2}$ gr. doses twice a day.

If the amenorrhea is due to tuberculosis, treat the latter with tonics, fresh air, cream, etc., and not the amenorrhea, which is nature's effort to save strength. When the health of the patient is re-established menstruation will return.

AMYLOID DEGENERATION.

Prophylaxis. In any disease in which suppuration is present, check latter if possible. In chronic joint disease, psoas abscess, syphilitic disease of bone, or prolonged pyæmia, the diet should be nutritious, and especially rich in proteids, and should contain the potassium salts which the affected tissues lack, e. g., juice of fresh meat, and the green parts of vegetables. Iron, cod-liver oil and potassium salts (bicarbonate or citrate) should also be given:

R.	Potass. bicarb.	ʒ iii
	Potass. citrat.....	ʒ ii
	Potass. acetat.....	ʒ ii
	Aquaæ.....	ʒ ii
	Syr. zingiber. q. s. ad.	ʒ iii
M. Sig.	One teaspoonful in water three times a day.	
	Arsenic and gold are of considerable service in general amyloid degeneration after the removal of the cause:	
R.	Liq. potass. arsenit.....	grs. xxx
	Auri et sodii chlorid.....	gr. i
	Elix. simpl. q. s. ad.....	ʒ iii
M. Sig.	One teaspoonful in water three times a day after meals.	

If due to syphilis treat the syphilis. If due to chronic tubercular sinuses, apply Bier's hyperæmia treatment, give bacterial vaccines, and remove any dead sequestra of bone.

ANÆMIA (See Chlorosis).

ANÆMIA, PERNICIOUS.

Rest, massage, nutritious and easily assimilable diet, change of air, and pleasant surroundings. Gastric lavage, colonic irrigation, and intestinal anti-septics such as salol. Inhalation of oxygen. Iron frequently does more harm than good. Arsenic is of the greatest service, although no case is known which was cured by it. Give:

R. Liq. potass. arsenit. (Fowler's solution) .. ʒ iv

Sig. Two drops three times a day. Gradually increase until 50 or 60 drops have been taken daily.

The following prescription may be given as stimulating treatment:

R. Acid. arsenios..... gr. $\frac{1}{6}$
 Zinci phosphid..... gr. ii
 Strychnin. sulph. gr. $\frac{2}{3}$
 Extr. gentian..... grs. vi

M. et ft. pil. No. xxiv.

Sig. One every three hours

For complications, such as sudden blindness due to retinal haemorrhage, or paralysis due to haemorrhage into cord, nothing can be done. If there is gastric irritability and vomiting, treat them by lavage and other methods used in Acute Gastritis, which see.

ANÆMIA, SECONDARY.

Treat cause, e. g., haemorrhage, drain of chronic disease, cachexia of cancer, malaria or syphilis, lead, arsenic, or mercury poisoning, chronic indigestion and constipation, tubercle, leucorrhœa, prolonged lactation.

Patient should have rest, nutritious food, fresh air, and sunshine.

R. Syr. ferr. iodid..... ʒ iv

Sig. One-half teaspoonful in water after each meal, through a glass tube.

If stomach is irritable give:

R. Syr. ferr. lactophosphat. N. F..... ʒ iv

Sig. One teaspoonful after each meal.

Or:

R. Malt. cum ferr. quin. et strychn..... ʒ viii

Sig. One tablespoonful after each meal.

ANÆMIA, SPLENIC.

Medical treatment is of very little avail, but iron, arsenic, and extract of red bone marrow may be tried.

Removal of the spleen is by far the most successful treatment. Complete recovery has followed in 20 out of 25 cases. Operative results are best if instituted early, that is, before the patient has become very weak, or the spleen has reached an enormous size.

ANAL FISSURE.

Extreme local cleanliness is necessary. Keep the motions soft by laxatives, such as sulphur, etc. Relieve pain by cocaine, or eucaine in lanolin.

Or:

R.	Iodoformi.....	gr. xl
	Olei olivæ.....	3viii

M. Sig. Inject one ounce into rectum after evacuating bowel by enema.

Suppositories of gall and opium, morphine, or belladonna may be used to relieve pain.

Expose the ulcer by gently separating the blades of the rectal speculum, and then apply phenol lightly with cotton swab or silver nitrate, as a cauterant. Then insert one of the following suppositories into the rectum:

R.	Acetanilidi.....	grs. xviii
	Ichthyl	m. xx
	Extr. opii.....	gr. vi
	Ol. theobrom.....	3ii

M. et ft. supposit. No. vi.

Sig. Use one night and morning.

ANASARCA (See Ascites).

ANEURYSM (THORACIC and ABDOMINAL).

Employ measures to favor the formation of a permanent clot within the sac which will obliterate it by the deposition of laminated fibrin. In Tufnell's postural and dietetic treatment the patient is confined to the horizontal posture from eight to thirteen weeks according to the progress made. The following starvation diet is also given, consisting of eight ounces of liquid and ten ounces of solids daily. Breakfast and supper each consist of two ounces of bread and butter, and two ounces of milk, tea, or cocoa; dinner of three ounces of meat, three ounces of potatoes, or bread, and four ounces of water or claret. Laxatives are given daily so that the blood pressure shall not be increased by constipation or straining at stool. This treatment is very fatiguing and it is difficult to secure the patient's obedience.

Iodide of potassium in doses of fifteen to twenty grs. thrice daily is also administered, to relieve the

pain, lower the blood pressure, and possibly thicken the blood by increasing the secretions.

When the pain is very severe an ice-bag may be applied or morphine administered hypodermically. Cyanosis may be relieved by venesection.

Coagulation may also be favored by the injection of gelatin (four ounces of a three per cent sterilized solution) hypodermically, although abscesses and other bad effects have sometimes followed from these injections.

Gelatin may be given internally with equal benefit, and without tiring the patient if administered in the form of the ordinary flavored gelatin of the grocery.

In order to increase the coagulating power of the blood, calcium chloride or calcium lactate may be given by mouth or by rectum:

R.	Calcii chloridi.....	3iv
	Aquæ	3iss
	Syr. limonis q. s. ad.....	3iii

M. Sig. One teaspoonful every three hours.

Aneurisms when small and within easy access, can be ligatured, injected, or filled with silver wire.

ANGINA PECTORIS.

Patient should lead quiet life, should avoid excesses, should not overload stomach, and should avoid physical and mental fatigue. Diet should consist of simple, easily digested food; alcohol, tea, coffee, and tobacco should be prohibited.

Relieve attack by inhalation of 3 to 5 drops of amyl nitrite sprinkled on handkerchief. If this fails give hypodermic injection of morph. sulph. ($\frac{1}{4}$ gr.) with atrop. sulph. ($\frac{1}{100}$ gr.).

Hot water bag or mild mustard poultice, or sometimes cold compress to chest. Glass capsules containing 3 to 5 minims of amyl nitrite should be carried by patient in pocket for use in emergency.

When flatulence is present, give.

R.	Spt. ammon. aromat.....	3iv
	Tinct. cardamom.....	3iv
	Tinct. nuc. vomic.	3ii
	Tinct. capsici.....	3ii
	Syr. zingib. q. s. ad.....	3iii

M. Sig. One teaspoonful in water every three hours

Or:

R.	Pulv. rhei.....	grs. xxxvi
	Sod. bicarb.....	grs. xxxvi
	Pulv. zingib.	grs. vi
	Magnes. carb. pond.	grs. xxxvi

M. et ft. caps. No. xii.

Sig. One every three hours.

The cardiac depression which remains after the attack may be treated by strychnine, ammonia, camphor or ether, e. g.

R.	Strych. sulph.....	gr. $\frac{2}{3}$
	Quinin. hydrochlor.....	grs. xl

M. ft pil. No. xx.

Sig. One pill after meals.

The general treatment consists in combating the chronic myocardial disease and the sclerosed condition of the arteries, with nitrites, iodides, arsenic and nitro-glycerin.

R.	Potass. iodid.....	3iv
	Aquæ.....	3i
	Ess. pepsin. q. s. ad.....	3iii

M. Sig. One teaspoonful in water four times a day.

ANI, PRURITUS.

Search for and treat cause, e. g., internal haemorrhoids, eczema, herpes, erythema, small fistula, worms in rectum, or lice on body.

Search for and correct errors in diet, prohibit excessive smoking or use of alcohol. Active exercise, plain living, and cold bathing of part, night and morning.

Prescribe a wash like this:

- R. Argenti nitrat..... grs. xv
Aqua destillat..... ʒi
M. Sig. Apply to affected part with camel's hair brush.

Or an ointment like this:

- R. Acidi carbol..... grs. xv
Hydrarg. chlor. mit..... grs. xx
Unguent. zinc. oxid..... ʒi

Sig. Apply locally twice daily.

Or:

- R. Menthol..... grs. x
Ungt. phenol..... ʒi

M. Sig. Apply twice a day.

In all cases of pruritus ani, the urine should be examined for sugar, because diabetes is a frequent cause.

ANKYLOSIS.

When incomplete ankylosis has taken place, break down adhesions by gradual, or if necessary, forcible extensions under anaesthesia, by passive motion, by massage, by Bier's hyperæmia treatment, or by tenotomy of the tense tendons. If ankylosis is complete, excision or osteotomy, or perhaps even amputation, may be necessary.

Ankylosis may be avoided in diseases and injuries of the joints, in fractures, etc., by proper setting and by early passive motion.

ANKYLOSTOMIASIS.

Thymol may almost be regarded as a specific. It is given in capsules of ten grains each, one capsule being taken every 15 minutes until two drachms are taken, and then followed by a purgative.

Phillips' formula is being used in Manila with excellent results:

- R. Ol. eucalypt..... m. xxxvii
Chloroform..... m. 1
Ol. ricin..... ʒiss

M. Sig. Divide into two doses and give half an hour apart. The patient is first given a dose of magnesium sulphate, and two hours after the second dose, another dose of magnesium sulphate is administered. Fasting is imperative.

Prophylaxis. If there is no pure water supply all drinking water should be boiled or filtered. Navvies, miners and all those whose hands or feet are liable to be soiled with earth or clay, should wash carefully before eating, and on returning from work. Navvies should be encouraged to wear shoes and putties, and not allowed to work barefoot. The workers should be regularly inspected and all anaemic individuals should be examined for ankylostomes and treated if necessary.

ANOREXIA (Impaired appetite).

Treat the cause, e. g., gastric disorder, hysteria, retarded convalescence, etc. Active out-door exercise and change of climate ought to be recommended. The following will stimulate the appetite in most cases:

R. Tinct. nuc. vomic.	5iv
Tinct. gentian.	
Tinct. quass.	
Tinct. cardamom.	
Tinct. calumb.	3ii
Elix. pepsin. et pancreatin. q. s. ad ..	3iii

M. Sig. One teaspoonful in a wineglassful of water before each meal.

Or the following:

R. Acid. nitrohydrochlor. dil.....	m. c
Syrup. aurant.....	5x
Tinct. gentian. co	5v
Aquæ q. s. ad	3iii

M. Sig. One teaspoonful three times daily before meals.

ANTHRACOSIS (See Pneumoconiosis).

ANTHRAX (WOOLSORTER'S DISEASE. SPLENIC FEVER).

Prophylaxis. Disinfect all hides, wool rags, etc., infected with bacillus anthracis. Cremate animals which have died of this disease and prohibit grazing over infected pastures, etc.

Diet: A plentiful supply of animal food; beef tea, milk, and eggs. Tonics like quinine, iron and whisky. Opium to relieve pain.

The painful nodes may be aborted in the early stage by a central injection of 15 minims of a ten per cent solution of carbolic acid in glycerin.

Or:

R. Hydrarg. chlor. corros. gr. i
Aquæ destillat. gtt. c

M. Sig. Inject into and around the border of lesion with hypodermic syringe. Make five punctures, injecting two drops at each puncture. Repeat injection once.

If too late for this abortive treatment make firm compression by concentrically applied straps, leaving central opening free for discharge of sloughs. If symptoms of septicæmia supervene, deep crucial incisions should be made and the necrosed tissue extirpated.

ANTIMONY POISONING.

(Tartar emetic, etc.)

Encourage vomiting by draughts of warm water, or by emetic, or use stomach tube. Give strong tea, or 30 grs. of tannic acid in warm water. When vomiting subsides, give white of egg in water, or plenty of milk. Treat collapse with stimulants, and hot water bottles to extremities. Hypodermic injection of morph. sulph. ($\frac{1}{3}$ gr.) to relieve the pain.

ANURIA (See Suppression of Urine).

APHASIA.

If the aphasia occurs after excitement or overwork

without paralysis, it is a warning of much importance, and may be the precursor of graver symptoms. The patient requires absolute rest and careful watching. Give bromides and other sedatives. Restrict the use of, or forbid, stimulants.

If the lesion be a gummatous meningitis, or a gumma in the language zone, or in the sub-cortical speech tracts, treat with mercury and potassium iodide.

If the aphasia occurs at the beginning of a uræmic attack, venesection is indicated.

If it is due to tumor, abscess, or purulent meningitis, it may require the combined skill of the physician and surgeon to locate and remove the lesion.

APHONIA, HYSTERICAL.

General tonics and supporting treatment are indicated. Local application of the faradic current to the larynx gives good results. One pole is applied externally over the larynx, and by means of a suitable laryngeal director provided with a button for making contact, the other pole may be applied to the interior of the larynx itself. On making contact the patient should be firmly ordered to say one, two, three, etc. A fairly strong current is necessary and although good results are obtainable constant relapse is apt to occur.

APHRODISIA.

If the aphrodisia is due to reflex irritation of the genitals, treat the cause, e. g., phimosis, urethral stricture, disease of prostate, anal fissure, haemorrhoids, eczema, irritating urine, worms in rectum or vagina, friction of thighs in bicycling or horse-back riding.

General treatment is dietetic, hygienic and moral. Physical and mental work to the point of fatigue is of benefit, non-sedentary life, light diet, absence of meats, highly seasoned foods, coffee and alcohol. Patient should sleep in a cool, well-ventilated room,

avoid sleeping on back, and should empty bladder on rising in the morning.

Drugs used as anaphrodisiacs: Bromides, camphor monobromate, hyoscin, lupulin, antimony, chloral, salicin, conium.

In cases of nymphomania, priapism, or chordee, give:

R.	Potass. iodid.....	ʒ ii
	Potass. brom.	ʒ iv
	Tinct. lupulin.....	ʒ iv
	Tinct. hyoscam.	ʒ iv
	Syrupi zingiberis.....	ʒ i
	Aquaæ camphor. q. s. ad.....	ʒ viii
M.	Sig. One tablespoonful in water after meals.	

APHTHÆ.

Examine teeth, regulate the diet. Cleanse child's mouth and mother's nipple after each nursing with one of the following washes:

R.	Sol. potass. chlorat. sat.....	ʒ iv
	Sig. Wash with piece of gauze every two hours.	
Or:		
R.	Liq. antisept. alkalin. N. F.....	ʒ iv
	Sig. Use as mouth wash every two hours.	
	Internally give for a child one year old.	
R.	Acid. nitromuriat. dil.....gtts.	xvi
	Elix. digestiv. co. N. F. q. s. ad.....	ʒ ii
	M. Sig. One teaspoonful three times a day.	

APOPLEXY.

Place the patient in a horizontal position with the head elevated, and the feet low. Apply ice to the head, and hot-water bags to the feet. One to three drops of croton oil mixed with a little olive oil and placed on the back of the tongue, will secure prompt action of the bowels. About 8 ozs. of blood should be taken from one of the median basilic veins until the pulse softens. When venesection is impossible, tincture of aconite may be given in doses of one drop every 30 minutes until the tension becomes lower.

If necessary, give a rectal enema, and draw urine from the bladder.

Subsequent treatment. Preserve the nutrition, give a light unstimulating diet, and rectal feeding if necessary. Prevent bed-sores by attention to cleanliness both of the bed, and of the patient's skin. The buttocks and heels should be rubbed with alcohol and powdered daily. The position of the patient should be frequently changed. He should be turned gently on his side when collection of mucus interferes with his breathing, and also to guard against hypostatic pneumonia. After two or three weeks, massage, warm baths, and tri-weekly applications of the faradic current should be resorted to. Tonics such as strychnin may be given. Potassium iodide is frequently valuable in helping to produce absorption of the blood-clot.

R.	Potass. iodid.....	5iv
	Potass. bromid.....	5ii
	Aquaæ.....	3iss
	Elix. taraxac. co. N. F. q. s. ad.....	3iii

M. Sig. One teaspoonful in half a glass of hot water three times a day.

APPENDICITIS.

Is a surgical disease. The best results are obtained if the appendix is removed within the first 24 hours. If this is not done and pus begins to form, simple incision and drainage will give relief. The appendix should then be removed between the attacks. If peritonitis is present, place the patient in a semi-sitting posture, and give continuous physiologic salt solution enemas.

If operation is refused then treat medically. This consists in absolute rest in bed and complete suspension of food by the mouth. Feed by rectal enemas. Give as little opium as possible for relief of pain because it may mask serious symptoms. It is better to relieve pain by the ice-bag, by hot poultices, or by

mild counter-irritants such as mustard or turpentine. Flush out the colon with hot water. Purgation should be avoided.

If the stomach is very irritable, the following frequently gives relief:

R.	Hydrarg. chlor. mit.....	grs. ii
	Sacchar. lact.....	grs. xii
	Cerii oxalat.....	grs. xii
M.	et ft. chart. No. xii.	

Sig. One every two hours.

If the patient is not seen within the first twenty-four hours, it is frequently best to treat him medically until the tenth day, on which it is as safe to operate as on the first day. The most dangerous time to operate is on the fourth, fifth, or sixth days.

ARSENIC POISONING, ACUTE.

Emetic or stomach tube. Freshly prepared ferric hydrate or dialysed iron in frequently repeated table-spoonfuls, each followed by weak solution of common salt.

Next give milk and eggs, $\frac{1}{4}$ pint of olive oil in one pint of water. Hot water bottles to extremities, stimulants for prostration, ice for thirst. Hypodermic injection of morph. sulph. ($\frac{1}{4}$ gr.) when the acute symptoms have subsided.

ARTERIOSCLEROSIS.

Prophylaxis. Patient should avoid mental and physical fatigue, and should be temperate in the use of alcohol and tobacco, should avoid over-eating and especially too much animal food. He should take moderate exercise, plenty of baths, followed by massage and friction.

Treatment. Look for and treat the underlying cause: syphilis, gout, plumbism, alcoholism, renal disease, thyroid enlargement, rheumatism and over-eating.

The only drugs that have any direct effect on the progress of arteriosclerosis are the iodides, nitro-

glycerin and the saline cathartics. Treatment should be kept up for a long time; the iodides should be given for two weeks and then nitroglycerin for two weeks, then back to the iodides again:

R.	Potass. iodid.....	ʒ vi
	Aqua.....	ʒ i
	Essenci. pepsini.....	ʒ i
	Syr. sarsap. co. q. s. ad.....	ʒ iii

M. Sig. One teaspoonful in water after each meal.

R.	Tab. nitroglycerini.....	gr. 100
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No. xxx

Sig. One tablet four times a day.

The bowels should be kept loose, preferably with salines.

Venesection is indicated when there is marked dyspncea associated with high arterial tension.

ARTHRITIS (See Gonorrhœal Arthritis, Traumatic Arthritis, and Rheumatoid Arthritis).

ARTIFICIAL RESPIRATION.

The best method is that of Sylvester. Place the patient on his back, stand at his head, grasp his arms just above the elbows, draw the arms steadily upwards above the head and keep them stretched upward for two seconds. Then turn down the patient's arms and press them gently and firmly for two seconds against the sides of the chest.

The above method is best for the cessation of respiration during chloroform anaesthesia, or in case of drowning. Another method frequently used, especially in asphyxia of the new-born, is Laborde's method of rhythmic traction of the tongue. The tongue is pulled out and then let go, and this is repeated about twenty times a minute.

ARTIFICIAL STERILITY (See Conception, Prevention of).

ASCARIS LUMBRICOIDES. (Round worm.)

Children are most frequently affected.

Drugs used. Santonin, spigelia, chenopodium, turpentine, etc.

Food should be abstained from for 12 to 24 hours. Give an active purge, three quarters of an hour after the remedy.

Doses: santonin, one to two grains; fluidextract of spigelia, 2 drachms, or:.

R. Fluidextr. sennæ.

Fluidextr. spigeliae.....āā 5ii

M. Sig. One dose.

Oil of chenopodium may be dropped on sugar in dose of 20 to 30 minims.

The following is the most popular method of prescribing santonin. It should be given on an empty stomach:

R. Hydrarg. chlor. mit.....grs. xii

Sacchar. lact.....grs. xii

Santoninigrs. viii

M. et ft. chart. xii.

Sig. One every three hours. Children in proportion.

ASCITES.

Treat the cause: Renal, hepatic or cardiac; the cachexia of malignant disease, or tubercular peritonitis.

The drugs used are of three types: 1. Diuretics.
2. Hydragogue cathartics. 3. Diaphoretics.

Drugs used: Digitalis, strophanthus, elaterium, squill, jalap, potassium citrate, calomel, colocynth, and blue mass.

When the ascites is due to renal, cardiac, or hepatic disease, use the following for diuresis:

R. Infus. digital. fol. (freshly made). 3xii

Sig. One tablespoonful four times a day.

Or, Niemeyer's pill:

R. Pulv. digital.

Pulv. scillæ.....āā grs. x

Hydrarg. chlor. mit..... gr. iss

M. et div. in pil. x.

Sig. One every three hours.

Or:

R.	Diuretin.....	3 ii
	Potass. citr.....	3 iss
	Potass. acetat.....	3 iss
	Infus. digital. fol. q. s. ad.....	3 viii

M. Sig. One teaspoonful three times a day in hot water.

For free catharsis use:

R.	Pulv. jalap. co.....	3 ii
	Sig. Half a teaspoonful at bedtime.	

Or:

R.	Elaterin.....	grs. ii
	Extract. hyoscyam..... grs. xii	

M. et ft. mass. et div. in pil. No. xii.

Sig. Take one and repeat in three hours if necessary for purgation.

For diaphoresis use:

R.	Tab. pilocarp. hydrochlor. hypoderm..	gr. 1/5
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Sig. One injection only.

Where the fluid is in such large quantities as to interfere with the patient's comfort paracentesis must be employed. Tap the abdomen in the median line half way between the pubis and the umbilicus. Allow the fluid to escape slowly to prevent collapse. Frequent tapping is often necessary to keep the patient comfortable.

ASPHYXIA.

First ascertain the cause of the asphyxia, whether due to (a) absence of oxygen and the saturation of the system with carbonic acid gas, as in breathing impure air, or air charged with carbon monoxide, or obstruction to the entrance of air, as in drowning, smothering, hanging, pressure of tumor or disease of the air passages; or it may be due to (b) a direct action on the medulla, and to paralysis of respiration by shock, opium, chloroform and other poisons, or to disease of the brain.

Treatment. If air of room is impure, remove patient to fresh air. Remove any foreign body in

the air passages, relieve stenosis of the larynx by intubation or tracheotomy. In cases of drowning or smothering, try to remove fluid or foreign substance that may have entered the lungs. Apply the stomach pump or lavage, if poisons have been swallowed. If the bodily heat has been lowered by exposure or immersion in cold water, apply heat in the form of warm blankets to the body and hot water bottles to the extremities, after removing the patient to a warm room and removing his wet clothing. Friction over the skin and immediate immersion in a warm bath are also of service.

Cardiac and respiratory stimulants such as strychnin, digitalin, ammonia, ether and brandy hypodermically, and hot stimulating rectal enemata are also of value. When the lungs are congested and the right cavities of the heart distended venesection is of service.

In failure of respiration during the administration of anaesthetics, lower the head and shoulders so as to favor the flow of blood to the respiratory centers in the brain.

In cases of drowning, place the patient with the face downwards and the head lower than the body, and the tongue drawn forwards to allow any water to escape.

In other conditions the greatest degree of expansion of the chest is obtained by inclining the patient's body slightly upwards and placing a pad of clothing under the back to raise the chest.

See also Artificial Respiration.

ASTHMA.

Remove exciting causes, such as odors, exhalations, localities, occupations, or foods which may bring on an attack.

Treat digestive disturbances, bronchitis, emphysema, and cardiac disorders, and remove diseased

conditions of the nose and throat, such as adenoids and enlarged turbinated bones in children.

Treatment of the paroxysm. Give one hypodermic injection of $\frac{1}{4}$ gr. morphin. sulphat. Amyl nitrite pearls containing 5 minims on a handkerchief for inhalation. A few whiffs of chloroform are also useful. Hot coffee or hot whisky and water. Mustard plaster to cover chest.

Treatment during intervals. Drugs used: Potassium iodide, tincture of belladonna, arsenious acid, grindelia robusta, lobelia, pepsin, strychnine and morphine.

R.	Potass. iodid	3iv
	Tinct. belladonn	gtts. xxxvi
	Tinct. lobeliae	5ii
	Tinct. digitalis.....	5ii
	Syrup. codein. (N. F.) q. s. ad.....	3iii

M. Sig. One teaspoonful every four hours with hot water.

Or:

R.	Potass. iodid.....	3iv
	Sodii bromidi.....	5iii
	Extr. grindel. robust.....	5iii
	Tinet. lobeliae.....	5ii
	Elix. taraxac. co. (N. F.) q. s. ad....	3iii

M. Sig. One teaspoonful in hot water every four hours, If emphysema and bronchitis are present, give:

R.	Ammon. iodid	5iss
	Ammon. bromid.	5ii
	Syrup. tolu.....	5ii
	Tinct. lobel q. s. ad.....	3iii

M. Sig. One teaspoonful three times a day.

Inhalants are of great value to some patients. such as:

R.	Pulv. stramon.	
	Pulv. belladonn. fol.....	ââ grs. 375
	Pulv. potass. nitrat.....	grs. 90
	Pulv. opii	grs. 15

M. Sig. Ignite a tablespoonful on a saucer by side of patient.

The above drugs may be made into cigarettes and smoked with a cigar-holder.

Diet.—Patient should avoid heavy meals and late suppers. Prohibit cheese, sausages, sweetmeats, pies, coffee, nuts and preserves. Carbohydrates should be sparingly indulged in.

Climate.—There is no specific climate; one patient is best at the seashore, another in the mountains, and a third free from attacks only while living in the city. In general a woody country near pines is better than an open country. High altitudes or places in which certain plants give off unhealthy odors should be avoided.

ASTIGMATISM.

Correct the astigmatism by choosing for the patient a spectacle lens of a symmetrical refraction, of such power and so mounted as to equalize the refraction of the eye in its two principle meridians. This choice, however, can only be safely entrusted to the ophthalmic specialist. The general practitioner and the ordinary spectacle dealer should decide none but the simplest questions in the choice of glasses.

A person who has arrived at the age of fifty without having experienced any trouble with his eye-sight, can make no great mistake in buying convex glasses when he begins to suffer from presbyopia; but even in such a case an examination of the eyes by an optical specialist may reveal some degree of astigmatism which ought to be corrected, or perhaps some pathological condition which ought to be attended to.

ATAXIA, LOCOMOTOR. (See Tabes Dorsalis.)

ATELECTASIS IN EARLY INFANCY. (Undistended Lung.)

Strengthen the respiratory process by clearing the air passages of obstructions and by sustaining the strength of the child. Provoke crying and coughing so that deep inspirations may be instinctively

taken. Artificial respiration may be resorted to. Do not permit child to sleep too long or to remain too long in the same position. Maintain the bodily heat by wrapping the infant in cotton or flannel or keeping it in an incubator.

ATROPINE, POISONING BY.

Evacuate stomach by emetics or stomach pump. Antidotes: Animal charcoal absorbs the alkaloid, tannic acid renders it insoluble. Physostigmin (Calabar bean) is a physiological antidote, and should be administered hypodermically, using the condition of the pupils as a guide to the dosage. Begin with a dose of $\frac{1}{10}$ gr. and repeat if the pupils do not begin to contract.

BACKACHE.

This is a symptom of many diseases, functional and organic. It is frequently one of the first symptoms in some of the acute infectious diseases as typhoid, small-pox, tonsillitis, etc. It is a frequent symptom of uterine or ovarian disease and neurasthenic conditions, especially at the menopause. The pain of intercostal neuralgia causes a backache at the exit of the nerve from the vertebral column. The pain of gastric ulcer is characteristic on account of its burning, boring character. The pain of gall-stones may be referred to underneath the right shoulder blade. In Bright's disease the pain is of a dull aching character, whilst the pain of acute cystitis is much lower down and much sharper. In locomotor ataxia the lightning pains of the limbs begin in the back. Prolapse of the viscera from relaxation of the abdominal walls causes a dragging pain in the back. Rheumatic affections as lumbago are so severely painful that the patient is unable to move

In order to relieve the backache due to the above causes these diseases must be treated. For the infectious diseases massage of the back with alcohol.

spirits of camphor or opodeldoc is all that is necessary. If due to uterine or ovarian disease correct the condition causing it, adding to the treatment iron and other tonics. The following prescription is of considerable benefit in uterine cases:

R.	Tinct. gelsemii.....	ʒ iss
	Sodii bromid.....	ʒ iiss
	Tinct. hyoscyam.....	ʒ iii
	Aquæ.....	ʒ ii
	Elix. simpl. q. s. ad.....	ʒ iii

M. Sig. One teaspoonful every three hours in water.

If the backache is due to neurasthenia or other functional nervous affection, give the following:

R.	Asafœtid	grs. xxxvi
	Extr. sumbul.	
	Ferr. reducti	āā grs. xlviii
	Mangan. dioxid	grs. xii
M. et ft.	caps. No. xxiv.	

Sig. One four times a day.

If the backache is due to lumbago, gastric ulcer, cystitis, tonsillitis, cholelithiasis, or tabes dorsalis, treat these conditions.

BALANITIS.

Prophylaxis. Cleanliness, retraction of the prepuce and daily washing of the glans penis. Circumcision.

Treatment. Pull back the prepuce and apply a mild antiseptic wash of corrosive sublimate (1 to 5000). Then carefully dry the exposed surfaces so as not to chafe them and dust on an unirritating powder composed of :

R.	Bismuth. subnitr.	
	Hydrarg. chlor. mit.	
	Zinc. oxid.....	āā ʒ ii

M. Sig. Use two or three times, a day.

Lastly separate the powdered surfaces with a very thin layer of absorbent gauze.

Erosions or ulcerations which do not heal readily should be touched with a piece of cotton moistened with a solution (5% to 20%) of nitrate of silver.

Phimotic cases are very troublesome and should be irrigated very often. In severe cases dorsal incision or circumcision may be needed.

For children it is safer to use the following lotion for cleansing purposes :

R. Creolin or Cresol..... 3ii

Aquæ q. s. ad..... 3viii

M. Sig. Wash thoroughly outside and under the prepuce with this solution, and apply gauze soaked with same, changing every four hours.

At bedtime apply the following if inflammation is severe:

R. Plumb. acetat..... 3iii

Tinct. opii..... 3i

Aq. q. s. ad..... 3viii

M. Sig. Apply freely on lint.

BALDNESS (See Alopecia).

BANTI'S DISEASE (See Anæmia, splenic).

BARBER'S ITCH (See Tinea Barbae).

BASEDOW'S DISEASE (See Goitre, exophthalmic).

BED-SORES.

Guard against them in the diseases which they most frequently complicate, e.g., long continued diseases like typhus, typhoid, phthisis, scurvy, cases of spinal disease in which particles of food, urine and feces irritate the skin; hemiplegia and paraplegia where voluntary movement is lost; and in trophic disturbances due to injuries of the central nervous system.

Preventive treatment consists in relieving the pressure to which the parts are subjected, by turning the patient and constantly changing his position in bed; by the use of a water-bed with air-cushions, pillows and rings; and by keeping the sheets clean

and smooth. Next keep the parts clean, especially where there is incontinence of urine or feces. Beds are made with the part under the genitals removable, and one of these may be used. Next use chemicals to harden the skin, e. g., spirits and water, argenti nitras, tannic acid, lead, etc., thus:

R.	Aluminis.....	ʒi
	Spt. vin. rect.....	ʒviii
	Aquæ q. s. ad.....	ʒxvi
M. Sig.	Sponge body freely thrice daily after bathing with water.	

If, in spite of care, red spots appear and threaten to break, give:

R.	Argenti nitrat.....	grs. xl
	Aquæ destillat.....	ʒii
M. Sig.	Paint red spots daily.	

If, through negligence or unavoidably, a bed-sore has formed, cleanse thoroughly with solution of hydrarg. bichlor (1 to 1000), encircle with soap plaster round the edges, apply iodoform freely several times a day and place the patient's body upon a rubber air-ring. Paint the ulcer every second day with solution of silver nitrate (20 grs. to ʒi of distilled water). The following will also relieve the pain and promote healing:

R.	Zinci stereatis.....	ʒii
	Chloretoni.....	ʒss
	Acidi borici.....	ʒii

M. Sig. Apply freely.

BED-WETTING (See Incontinence of Urine).

BELLADONNA POISONING.

Use the stomach tube or give an emetic. Give pilocarpine nitrate (gr. $\frac{1}{2}$) or morphine sulphate (gr. $\frac{1}{3}$) hypodermically. Give also stimulants and hot coffee. Apply warmth and use artificial respiration.

BELL'S PALSY (See Paralysis, Facial).

BERI-BERI.

Prevention. Sleeping rooms should be dry and well-ventilated. Avoid over-crowding. Wholesome and liberal dietary rich in fatty and nitrogenous food.

Treatment. Rest in bed, avoid bulky foods like rice, and give food in small quantities at frequent intervals; meat, fresh vegetables and fruit. Guard against heart failure by cardiac tonics such as digitalis and strychnine. During the cardiac paroxysms give 5 minim doses of amyl nitrite by inhalation, or nitroglycerin (1 $\frac{1}{2}$ gr.) hypodermically. If hydropericardium or hydrothorax is present, relieve by aspiration.

After the acute symptoms have subsided the functions of the nerves may be restored by massage and faradisation. Move patient as soon as possible to a non-infected place.

BILHARZIASIS.

The liquid extract of male fern, in doses of 15 minims three times a day, though it does not expel the parasites, seems to weaken their power of doing harm. It diminishes haematuria, allays vesical irritation, and reduces the number of eggs passed in the urine and faeces.

For the cystitis, salol, benzoic acid, and urotropin (15 grs. three times a day) are of use, and for the rectal cases, suppositories of belladonna.

The prescription for cystitis would be written in this way:

R.	Urotropin or Hexamethylenamin	ʒ ss
	Fluidextr. tritici q. s. ad	ʒ iii
M.	Sig. One teaspoonful in a glass of hot water, three times a day.	

In ordering male fern the prescription would be:

R.	Oleoresin. filic. maris	ʒ ss
	Chloroformi gtt. xxiv	
	Syr. acac. q. s. ad	ʒ ii
M.	Sig. One teaspoonful three times a day.	

BILIOUSNESS. (LIVER, CONGESTION OF.)

Regulate the diet; the patient should avoid rich food, pastries, condiments, sugars and starches. Food should be non-stimulating, e. g., milk, eggs, beef-broth, beef tea, lean meat, succulent vegetables, and acid drinks. Patient should take systematic exercise, such as walking, horseback riding, bicycling, motoring, etc. Change of air, sea bathing, cold bathing, sponging and douching are also of much benefit.

The so-called biliousness which is characterized by malaise, headache, constipation and indigestion, is often attributed to an excessive secretion of bile, but may be due to astigmatism or other error of refraction. Examine the eyes separately for these defects, and if present, treat them. Examine also the urine for albumin.

Treatment of acute attack. If due to hepatic congestion, deplete by saline purgatives, e. g., phosphate of soda ($\frac{1}{2}$ oz. doses), Rochelle salts or citrate of magnesia. Relieve nausea or vomiting by $\frac{1}{16}$ gr. doses of calomel frequently repeated, taken dry on the tongue. Relieve constipation with:

R.	Podophyllin. resin.....	grs. ii
	Extract. colocynthid.....	grs. xxiv
	Aloin.....	grs. iv
	Extr. belladonn.....	grs. iii

M. et ft. pil. No. xxiv.

Sig. One night and morning.

Mustard plasters, large poultices, wet cups, or leeches over liver, or leeches round anus may be of service. Morphine may be used to allay great pain.

If the hepatic congestion be due to cold or checking of the perspiration give saline diaphoretics or Dover's powder, a foot-bath and aconite to quiet the circulation.

BLACK-EYE.

Very hot or very cold applications if made at the time of the accident, will prevent extensive discoloration.

tion of the skin, but neither will accomplish much if the application is delayed. Avoid warm fomentations. Paint integument round eye to hide discoloration.

During the first twenty-four hours apply:

R. Lotio plumb. et opii. ʒiv

Sig. Keep solution on ice and apply on gauze fresh every half hour.

An excellent treatment for a black-eye is to paint over the bruised surface tincture of capsicum mixed with an equal bulk of mucilage to which a few drops of glycerine are added. A second or third coating is applied as soon as the previous one is dry.

If a prescription is wanted for the above it may be given as follows:

R. Tinct. capsici..... ʒiss

Mucilag. acaciae..... ʒii

Glycerini..... ʒss

M. Sig. Paint over the bruised surface.

BLACKHEAD. (COMEDO.)

Attend to patient's general health. Correct anaemic, gastric, intestinal or other derangements. Diet should be plain but nutritious; forbid candies, oatmeal, cheese, nuts, rich entrees, etc. Patient should take outdoor exercise.

Local treatment. Removal by watch-key or comedo extractor, face massage and face steaming.

Give the following prescription:

R. Sod. borat..... ʒii

Ungt. aq. rosæ..... ʒi

M. Sig. Apply freely, and after half an hour wash off with soap and cold water.

Then apply the following lotion:

R. Hydrarg. bichlor..... grs. ii

Acid. acet. dil..... ʒvi

Aquæ rosæ.

Spts. vini rect..... ää ʒss

M. Sig. Apply as lotion once a day.

BLADDER, INFLAMMATION OF (See Cystitis).

BLADDER, IRRITABLE.

Irritability of the bladder may be caused by wet feet, by pressure of a displaced or pregnant uterus, by prolapse of the uterus, loaded rectum, pressure from tumor in the abdomen, stone in bladder, inflammation in posterior portion of urethra and hysteria.

Correct the above morbid conditions if possible. Frequently if no special cause can be discovered and the urine is very acid, give:

R.	Potass. citrat.....	ʒiv
	Fluidextr. buchu.....	ʒiv
	Fluidextr. uvæ ursæ.....	ʒiv
	Fluidextr. tritici.....q. s. ad	ʒiii

M. Sig. One teaspoonful in hot water every three hours.

Occasionally it becomes necessary to wash out the bladder once a day with a hot saturated solution of boric acid.

If the irritability is due to hysteria or neurasthenia, give:

R.	Sodii bromidi.....	ʒiv
	Tinct. hyoscyam.....	ʒiv
	Aquæ.....	ʒi
	Fluidextr. tritici.....q. s. ad.	ʒiii

M. Sig. One teaspoonful in water every three hours.

Frequently small doses of tincture of cantharides quickly and entirely relieve irritability of the bladder in women, in whom there is no uterine displacement, and no acute inflammation:

R.	Tinct. cantharid.....	ʒii
	Fluidextr. tritici.....q. s. ad	ʒiii

M. Sig. One teaspoonful in water three times a day.

BLASTOMYCOSIS.

In the localized form iodide of potassium is a specific. It cures all cases very rapidly. Begin by giving 20 grs. three times a day and increasing till 50 grs. three times a day are taken.

R.	Potass. iodidi.....	3iss
Aquæ.....		3ii
Ess. pepsin.....	q. s. ad	3iv

M. Sig. One teaspoonful in very hot water after each meal.

The local lesions should be thoroughly curetted and dressed with gauze soaked in a hot lysol solution.

For the systemic cases no treatment of any kind has had any curative value. All we can do is to open pustules when they appear on the surface and dress them with wet antiseptic dressings, as:

R.	Lysol.....	3i
Aquæ.....	q. s. ad	3xii

M. Sig. Apply with gauze twice a day.

Internally, strychnine, iron and phosphorus may be administered to keep up the strength as long as possible.

BLEEDING, PRACTICAL DIRECTIONS FOR.

Observe strict antiseptic precautions in cleansing the site of incision, as well as the knife and bandages. Allow the patient's arm to hang suspended and apply a firm bandage above the elbow, sufficient to compress the superficial veins but not tight enough to stop the arterial flow. Select the most marked vein on the front of the fore-arm (the median basilic, external to the tendon of the biceps is the best), and open it longitudinally, inserting the point of the blade directly into the vessel and withdrawing it with a downward cutting motion.

When the blood flows freely, feel the pulse of the other arm and be on the lookout for symptoms of fainting. From twenty to forty ounces of blood may be removed according to the condition of the patient.

When the operation is over check the flow by applying a compress over the incision, remove the bandage from above the elbow, and bandage the fore-arm. After twenty-four hours remove this bandage.

BLEPHARITIS.

It is most important to correct error of refraction with suitable glasses. If the blepharitis is part of a constitutional condition, give the following for a child of five years:

R. Syr. hydriodic acid..... 3iii

Sig. Half a teaspoonful three times a day in water after meals.

Locally. Wash off the crusts from the roots of the eyelashes twice a day with a hot saturated solution of boric acid. Dry and rub in thoroughly along the edges of the lids:

R. Hydrarg. oxid. flav..... grs. iv

Ungt. petrolat. 3iv

M. Sig. Rub in twice a day.

BLEPHAROSPASM.

Search for and treat cause, e. g., foreign bodies in the conjunctiva, cornea, nose or ear. Examine also the teeth and mouth. Treat conjunctivitis or keratitis if present. Correct errors of refraction under atropinization and remedy any errors of the eye-muscles. Conium may be used both internally and externally.

Prolonged uncontrollable blepharospasm continuing for weeks and months is an indication of disease of the seventh nerve within the cranium. Resection of the external nasal branch of the ophthalmic division of the fifth nerve is recommended. Bromides with morphine occasionally give temporary relief:

R. Morph. sulph. grs. iii

Strontii bromid. 3iv

Aquæ..... 3iss

Syr. zingiber..... q. s. ad. 3iii

M. Sig. One teaspoonful three times a day in water.

Canthoplasty is frequently indicated when the blepharospasm is due to inflammation of the cornea.

When due to error of refraction atropin temporarily cures it:

R. Atropin. sulph. gr. i
Aqua destill. 3ii

M. Sig. One drop three times a day.

Internally give fluidextract of gelsemii in gradually increasing doses three times a day until the full physiologic effect is obtained.

BLINDNESS, PREVENTION OF.

Most common cause of blindness is ophthalmia neanatorum, due to gonorrhreal discharges from vagina. Eyes of all infants should be washed with a saturated solution of hot boric acid as soon as born, and a few drops of a two per cent solution of silver nitrate instilled. The above treatment is an absolute preventive of **Ophthalmia Neanatorum**, which see.

BOILS.

Examine the urine for sugar. Remove any pressure from edge of collar, cuff, shirt-button, etc. Patient should have frequent baths and change of underclothing. Tonics may be given such as iron, quinine, cod-liver oil and hypophosphites.

Prevention. Boils may be aborted by applying a few crystals of pure carbolic acid on a glass rod, or by the following paste:

R. Ichthyol. grs. x

Unguent. hydrarg.

Ungt. belladonn. aa 3i

M. Sig. Apply locally and make pressure with strips of adhesive plaster.

Or, a few drops of a 3 per cent solution of carbolic acid may be injected.

Or, the skin may be painted with silver nitrate, followed by collodion.

Unguentum belladonna as well as fomentations and poultices relieve the pain.

Hypodermic injection of anti-staphylococcus serum or vaccine is often of great service.

Internal treatment. Drugs used. Mineral acids, Blaud's pill, arsenic, quinine and aspirin.

A pill containing the following is very useful:

R.	Acid. arsenios.....	gr. 105
	Ferri sulph. exsicc.....	gr. i
	Calcii sulphid.....	gr. 1/4
	Extr. gentian.....	grs. ii

M. et ft. Caps. No. 1.

Sig. One three times a day after meals.

BRAIN ABSCESS.

If due to middle-ear disease, operate at once to drain.

If the abscess is due to other causes, try to locate it. Medical treatment is very unsatisfactory. If there is a wound on the head, disinfect it carefully with antiseptic solutions after shaving the head.

An ice-bag applied to the head, leeches behind the ear and a fly-blister to the back of the neck are of great value. Inunction with ungt. Crede twice a day is also of benefit.

For pain and excitement, give:

R.	Chloral hydrat.....	5iii
	Potass. bromid.....	5ii
	Sodii bromid.....	5ii
	Aquæ.....	5iss
	Elix. aromat. q. s. ad.	5iii

M. Sig. One teaspoonful every three hours in water.

BRAIN, CONCUSSION OF.

Treat external wound if there is one. For collapse, administer stimulants by mouth, by rectum, or hypodermically. Avoid alcohol. Use ether, strychnine, atropine, nitroglycerine or camphor as in following prescription:

R.	Strychnin. sulph.	gr. ss
	Spts. camphoræ.....	5iii
	Aquæ destillat. q. s. ad.	5ii

M. Sig. One teaspoonful by mouth or hypodermically every three hours.

Apply sinapisms over præcordium and epigastrium, or to calves of legs.

In stage of reaction give light diet, purgatives, or enemata, as required. Darkness and quietness. Shave

head and apply ice-bag or Leiter's tubes if necessary.

If cerebral irritation ensues, administer chloral hydrate and potassium bromide:

R.	Chloralis hydrat.....	3iii
	Potass. bromid.....	3iii
	Aqua.....	3i
	Elix. aromat. q. s. ad.	3ii

M. Sig. One teaspoonful every three hours, if necessary.

BRAIN FEVER (See Meningitis, Cerebro-Spinal).

BRAIN, HYPERÆMIA OF.

The patient should rest in bed with his head elevated and his arms stretched upwards. The quantity of blood in the brain may be diminished by giving a drastic purgative such as croton oil or colocynth to produce congestion of the intestinal tract:

R.	Hydrarg. chlor. mit.....	grs. xviii
	Sacchar. lact.....	grs. xii
	Extr. colocynth.....	grs. xviii

M. et ft. chart. No. xii.

Sig. One every hour until free purgation results.

Diuretics, hot mustard baths for the extremities, a mustard plaster to the epigastrium, the actual cautery to the nape of the neck, an ice-bag to the head, and a hot bath to the body are also of service.

When the condition is due to suppression of the menses, leeches to the anus or cervix uteri, as well as the electric brush to the thighs, warm applications to the loins and perineum are of great benefit.

When the attack is over the patient should have complete mental rest, fresh air, and keep regular habits. He should avoid tea, coffee, alcohol and tobacco.

BRAIN, SOFTENING OF.

Medication is of no value in senile softening.

During an acute attack the patient should rest in bed with his head in sloping position in a room of uniform temperature. The body of patient should

be kept warm with warm clothing and by artificial heat. Stimulants should be given cautiously.

When the attack is over regulate the diet, prohibit all mental effort and give a nerve tonic like.

- R. Phosphori..... gr. ss
Lecithin..... grs. xxxvi
M. et ft. pil. No. xxxvi
Sig. One four times a day.

BRAIN, SYPHILIS OR GUMMA OF.

Give anti-syphilitic remedies as soon as the diagnosis is made, and the earlier the better. Iodide of potassium is the drug to be depended upon, and may be given in increasing doses until so much as 500 grains are taken daily. Potassium iodide is best given in very hot water. Prescribe it in 50 gr. powders so that the dose can be easily regulated. This drug in immense doses is better borne by the stomach than small ones. A bottle of essence of pepsin may also be prescribed; a tablespoonful may be added to each dose.

If the patient is unconscious, the iodide may be injected (a drachm to a drachm and a half diluted with water or milk) into the rectum, every four hours. When the patient regains consciousness give the iodide by the mouth.

After the serious symptoms have abated, reduce the dose of the iodide gradually, but continue the iodide treatment for a year or two. Mercury should also be added to the treatment, either by mouth or hypodermically, preferably the latter. Hypodermically, give:

- R. Hydrarg. bichlor..... gr. ss
Aqua destillat..... ʒ iii
M. Sig. Inject one drachm deeply into the buttock once a day.

Or:

- R. Pil. hydrarg. proto-iodid..... gr. ¼
No. c.

Sig. One four times a day, and increase till 3 or 4 are taken at each dose.

If the pains are not allayed by iodide, then morphine or applications of blisters to the nape of the neck may be of service.

If convulsions occur often, add bromide to the iodide of potassium.

If the patient becomes delirious gentle restraint may be necessary.

Patient should avoid alcoholic or sexual indulgence. He should also shun excitement of any kind, and his bowels should be attended to regularly.

Do not give headache powders for the pain in the head, but push the iodide of potassium.

BRAIN, THROMBOSIS OF.

The patient should be kept perfectly quiet. If the heart's action is failing, as shown by the state of the pulse, give stimulants. When the attack is over, faradization of the paralyzed muscles may be of service.

BREAST, CONGESTION OF. ("CAKED" BREASTS.)

This condition usually occurs on the third day after confinement, when the first rush of milk enters the ducts. It is liable to occur off and on for about a week until the supply has regulated itself according to the demand. It may cause a slight rise in temperature which is best treated by saline cathartics. The breasts should be pumped out and towels wrung out in hot water should be firmly applied. Massage with cocoa butter rubbing from the nipple backwards is of considerable service. The child should be encouraged to nurse freely.

BREAST, CYSTS OF.

These are benign. They may originate during puberty and become painful with each menstruation.

They may at those times be gently massaged with the following ointment:

R. Ungt. hydrarg.

Ungt. stramon.

Ungt. belladonn.

Lanolin.....āā 3ii

M. Sig. Rub in gently twice a day.

Cysts frequently disappear spontaneously or during pregnancy. If they should during middle life cause much pain and discomfort, or if they should suddenly begin to grow, they should be removed immediately.

BREAST, FIBROMA OF.

This tumor is not of a dangerous nature, except when the breast receives a blow or injury when it may become cancerous. If it attains a large size it should be removed with the breast, without the axillary glands.

BREASTS, INFLAMMATION AND ABSCESS OF (See Mastitis).

BREATH, FETOR OF.

Examine teeth, nose, tonsils and fauces. May be due to retention of decomposing food, to caries of teeth, chronic rhinitis, tonsillitis, fetid bronchitis, bronchiectasis, gangrene, fetid empyema, constipation, dyspepsia, or ingestion of certain drugs such as mercury or sulphur. It may also be due to chronic alcoholism, to excessive use of tobacco, or to bolting of food at meals.

The patient should clean his teeth daily. All dental cavities should be filled. If dyspepsia is the cause, charcoal cake or powders should be taken:

R. Beta naphthol..... 5i

Carbonis ligni..... 3iss

Ol. menth. piperit. m. xii

M. et ft. caps. No. xii.

Sig. One after each meal.

If due to chronic catarrhal disease of nose or throat,

spray with the following solution which is soothing, agreeable and efficient:

R. Sod. baborat.

Sod. bicarb.

Sod. chlor.....āā grs. xxx

Sod. salicyl..... grs. x

Liq. antiseptic. alkalin..... ʒi

Glycerini..... ʒi

Aq. destillat. q. s. ad..... ʒviii

M. Sig. Spray into nose and throat twice a day.

The following should be used in conjunction with the above:

R. Tinct. iodini..... ʒi

Glycerini..... ʒi

M. Sig. Apply with cotton to the throat every two days.

If the tonsils are at fault remove them.

If due to chronic bronchitis, gangrene, bronchiectasis, etc., treat these conditions as given under their headings.

The following makes a very pleasant and effective toilet article:

R. Potass. permanganat. grs. iii

Aqua rosæ..... ʒiii

M. Sig. Use as mouth wash two or three times a day.

BRIGHT'S DISEASE (See Nephritis).

BROMIDROSIS.

Internally give a teaspoonful of sulph. precipitat. in milk twice a day. Locally: bathe the feet in water as hot as can be borne, then dust finely powdered boric acid well in between the toes and into the stockings and shoes.

A five per cent solution of chromic acid may be painted on the feet every month. Mutton suet with two per cent salicylic acid may also be rubbed on the feet, or affected parts:

R. Acid. salicyl.

Amyli.

Acidi borici.....āā ʒiv

M. Sig. Use twice a day between toes or in axilla.

BRONCHIECTASIS.

The same treatment is applicable here as in **Bronchorrhœa**, which see. Strychnine is of considerable importance in this condition to tone the lung.

BRONCHITIS, ACUTE.

Confine the patient to bed or to a room in which the air is warm and moist. The diet should be light and easily digestible, e. g., beef juice, etc. The bowels should be regulated by mild aperients. At the onset counter-irritation should be made by means of stupes, sinapisms, poultices, compresses, etc., e. g., a large mustard poultice covering the whole chest, applied not longer than half an hour; or hot kaolin poultices; or compresses spread with vaseline and sprinkled with a few drops of turpentine.

If the patient is robust and in the "dry stage" of the disease, tartar emetic (gr. i) should be dissolved in a cup of water, and a teaspoonful taken every ten minutes until nausea is produced. This relaxes the spasm of the bronchial tubes and a watery secretion with expectoration follows.

Or an expectorant may be given:

R.	Apomorph. hydrochlor.....	gr. ii
	Sodii bromidi.....	ʒiii
	Tinct. sanguinar	ʒss
	Syr. tolut.q. s ad.	ʒiii

M. Sig. One teaspoonful in a wineglass of water every two hours.

Or the following may be given:

R.	Codein. phosphat.....	gr. iv
	Ammon. chlorid.....	ʒi
	Syr. lactucar.....	ʒii
	Syr. tolut. q. s. ad.....	ʒiii

M. Sig. One teaspoonful every three hours.

Frequently we can abort an attack by giving a hot foot bath and a hot drink of lemonade or whisky, with a full dose of Dover's powder and an extra blanket in bed to promote diaphoresis.

The old-fashioned remedies, linseed oil and flaxseed tea, are beneficial because of their soothing effect.

The acute bronchitis of infants should be treated by general methods. No nauseating and digestion-destroying medicines should be given. Hot linseed poultices for several hours a day. Inunctions of hot camphorated oil twice a day and cotton around the chest are of much more benefit. If the cough is very irritating, the following may be given for a child one year old:

R.	Ammon. chlor.	grs. vi
	Syr. lactucar.	3ii
	Syr. tolutan.	3iss
	Mellis.	3i
	Syr. hypophosph. q. s. ad.	3iii

M. Sig. One teaspoonful every three hours.

Inhalations are also of great service for children, the vapor being conducted into a tent of blankets arranged over the patient:

R.	Tinct. benzoin. co.	3iv
	Creosot.	3ss
	Fluidextr. belladonn.	3ii
	Olei terebinth.	3i
	Olei eucalypt. q. s. ad.	3ii

M. Sig. Add one teaspoonful to a quart of boiling water, for inhalation.

In adults, when the secretion becomes plentiful, give a stimulant expectorant like this:

R.	Ammon. chlorid.	3iss
	Syrup. scill.	3ii
	Syr. lactucar.	3iv
	Elix. terpin. hydrat.	3iv
	Syr. tolutan.	3iv
	Syr. prun. virg. q. s. ad.	3iii

M. Sig. One teaspoonful every three hours.

During convalescence from a prolonged attack, change of air with cod-liver oil, iodide of iron, quinine and arsenic are of benefit.

BRONCHITIS, CHRONIC.

Since pure air is the natural disinfectant for the respiratory passages, the patient should be removed to a climate where he can have plenty of out-door life. A warm, dry climate is to be recommended in cases where there is much expectoration, and a warm, moist one, where there is little expectoration. The patient should avoid chills by wearing flannel next to skin of whole body (not merely chest-protectors), and seeing that his shoes are strong and dry. During the summer the patient should take salt-water baths followed by skin friction. In the winter the whole body may be rubbed briskly with oil in a warm room every morning. Respiratory exercises and thoracic massage are also of value.

Medical treatment should be directed towards toning up and stimulating the general circulation, and relieving the congested bronchial tubes. The first indications are met by giving cod liver oil, iron, malt, strychnine, etc. The second indications are met by giving ammonium carbonate, ammonium chloride, terebene, creosote, balsams of tolu and Peru potassium iodide and guiacol.

The following is excellent to liquefy expectoration and to stimulate excretion:

R.	Potass. iodid.....	5ii
	Syr. tolu.....	3i
	Tinct. senegæ.....	3ii
	Tinct. scillæ.	5ii
	Syr. prun. virg. q. s. ad.....	3iii

M. Sig. One teaspoonful every three hours.

The following capsule is of importance:

R.	Guiacol carbon.....	3i
	Terpin hydrat.	grs. xlviii
	Strych. sulph.	gr. $\frac{2}{3}$
	Codein phosph.	grs. iii

M. et ft. caps. No. xxiv.

Sig. One four times a day.

When stimulation is necessary, give:

R.	Ammon. carbon.....	3ii
	Ammon. iodid.....	3iii
	Syr. glycyrrhiz.....	3ii
	Syr. tolu q. s. ad.	3iv

M. Sig. One teaspoonful three times a day, in water.

Inhalants are very beneficial, e. g.:

R.	Eucalyptol.....	3i
	Camphor.....	3i
	Thymol.....	3i
	Menthol.....	5ss
	Ol. terebinth. q. s. ad.	3ii

M. Sig. One teaspoonful in a pint of hot water, for inhalation.

Or:

R.	Beechwood creosote.....	5ii
	Oil pine needles.....	3iv
	Oil wintergreen.....	5i
	Eucalyptol.....	m. xx
	Thymol.....	grs. xv

M. Sig. Inhale from 2 to 5 drops three times a day.

Put into a small cup and while being warmed over a spirit lamp, inhale the vapor.

When the cough is irritating, give:

R.	Creosoti.....	m. xxiv
	Ol. morrhuae.....	3ii
M. et ft. caps. No. xxiv.		
Sig. One three times a day.		

BRONCHO-PNEUMONIA (See Pneumonia, Lobular).

BRONCHORRHœA.

The treatment is the same as for chronic bronchitis, which see.

In addition it is very essential to give reconstructive tonics, as:

R.	Strych. sulph.....	gr. $\frac{2}{3}$
	Quin. sulph.....	grs. xviii
	Acid. arsenios.....	gr. $\frac{1}{4}$
	Ferri citrat.....	3ii

M. et ft. caps. No. xxiv

Sig. One four times a day.

The balsams are of great benefit, e. g.:	
R. Ol. santal.	3 <i>i</i>
Copaibæ.	5 <i>iss</i>
Terebene.	5 <i>i</i>
M. et ft. caps. No. xxiv.	
Sig. One every three hours.	

The inhalants are very soothing and should be used in the same way as in **Chronic Bronchitis**, which see.

The salts of ammonium and the iodides are of little benefit in this condition.

The patient can frequently help to empty the profuse secretions out of his lungs by allowing his body to hang head downwards out of bed, or he may take the knee-chest position.

BRUISES AND CONTUSIONS.

Lessen the amount of extravasation by cold or great heat (not mere warmth), both of which contract the smaller blood-vessels. Intense heat allays pain better than cold. The part may be gently rubbed and placed in such a posture as will help the return circulation. The rubber coil is the best way of applying heat or cold.

If the pain is very severe it may be allayed by morphine or antipyrine, hypodermically or by the mouth, or by cocaine hypodermically.

The inflammatory reaction may be treated with aconite, a saline purgative and a low diet.

When extravasation and inflammatory reaction have subsided pressure by a Martin's rubber bandage, or gentle rubbing, helps to remove the effused blood.

BUBO.

If possible treat cause, e. g., infection from genitals, infected wounds in extremities, syphilis, tuberculosis, etc. See also **Plague** and **Climatic Bubo**.

If due to infection on external genitals, cleanse the latter thoroughly with:

R. Hydrarg. bichlor. sol. ($\frac{1}{2000}$)..... 3vi

Sig. Use three times a day.

Shave the bubo and apply:

R. Ungt. hydrarg.

Ungt. belladonn.

Ichthyol.

Lanolin aa 3ii

Sig. Apply thickly to bubo twice a day.

If after a few days rest in bed the bubo goes on to suppuration, poultice for a few days with:

R. Cataplasmae kaolini N. F. 3xvi

Sig. Apply hot and thickly to bubo three times a day.

Then incise freely and pack daily with iodoform gauze after swabbing with tincture of iodine.

If the bubo is due to infected wounds in the extremities, as corns, burns or abrasions, treat these with hot antiseptic dressings, e. g.:

R. Creolin or Lysol..... 3ii

Sig. One teaspoonful in a quart of hot water. Apply frequently.

In these cases the bubo usually subsides in a few days from the following application:

R. Ungt. iodini..... 3i

Sig. Apply once a day and cover with cotton and bandages.

BUBO, CLIMATIC.

During the first week of the illness, enlargement of the groin-glands may be prevented by rest in bed, light diet, attention to bowels, and by the application of pressure on the gland itself.

If there is undoubted evidence of pus the gland should be exposed by a long incision parallel to the groin, and packed with antiseptic gauze daily

BUNIONS.

Patient should rest, and hot or cold applications should be made during the active stage. Lead water and laudanum may also be applied:

R. Liq. plumb subacetat.

Tinct. opii.....āā 3ss

Aq. destillat. q. s. ad..... 3viii

M. Sig. (Local use only.) Apply freely on soft cloths or absorbent cotton.

Pressure on the foot may be relieved by wearing a proper shoe. A metallic support for the arch of the foot will remove direct pressure on the toe. Mechanical contrivances may be devised to draw the toes inward.

BURNS AND SCALDS.

Stimulants should be given for the shock. The intense thirst may be allayed by ice, or by sips of ice-cold aerated water.

Local treatment. The main indication is to exclude the air by such substances as flour, starch, oil or molasses, which make a coating for the nerve filaments, that have been uncovered. Carron oil (equal parts of linseed oil and lime-water) or equal parts of carbolic oil (1 in 20) and lime-water may be applied on lint or soft linen or muslin to the burned surface, and then enveloped in layers of cotton batting, and held in place by a roller bandage. Great pain may be allayed by the hypodermic injection of morphine ($\frac{1}{3}$ gr.).

If the burns are very severe and extensive, a continuous warm (100° F.) bath of decinormal salt solution may be necessary. The patient may sleep in the bath propped on rubber air pillows.

Perhaps the best all-round application for burns is picric acid. It is a fair antiseptic, a good oxidizing agent and it has to a high degree, the power of coagulating albumen. It is best made in combination with citric acid in the following proportions:

Picric acid..... 10 parts

Citric acid..... 20 parts

Water..... 70 parts

The fluid should be sopped freely on the burn, so that it may reach the interior of every vesicle, and

when the excess has been drained off, the part is covered with soft gauze; the dressing should be re-applied every 2 or 3 days, but only to those areas where exudative fluid has collected.

BURSITIS.

In acute bursitis the patient should have rest, with hot fomentations, compression and iodine or ichthyol should be used to stimulate lymphatic absorption of the effused fluid.

R. Ungt. iodini.

Ichthyol.

Ungt. petrolati.....âā 3ii

M. Sig. Rub in thoroughly twice a day.

In later stages tapping may be necessary, or tapping followed by injection of irritant fluids, e. g., 5 or 10 drops of a 10% solution of carbolic acid.

CAISSON DISEASE (DIVER'S PARALYSIS).

Prophylaxis. The transition from high to low pressure should be made gradually by arranging chambers through which the workmen must pass slowly before going back to the ordinary pressure of the atmosphere. An elevator should be employed to take workmen up to the surface and thus avoid over-exertion. Hours of labor in high pressure air should be short. The air chamber should also be thoroughly ventilated. After de-compression, the workman should have rest, a warm drink and a change of warm clothing.

Treatment. Morphine hypodermically for the severe pains. Electric current and massage to relieve the pains of the joints. Hot compresses should be applied to the spine and to the extremities. The paralyses, sensory disorders, etc., should be treated as in Acute Myelitis.

CAKED BREAST (See Breasts, Congestion of).

CALCULI, BILIARY (See Cholelithiasis).

CALCULI, RENAL (See Nephrolithiasis).

CALCULI, URINARY (See Nephrolithiasis).

CANCER.

Removal by caustics, by electrolysis, by parenchymatous injections, or by injection of the toxin of erysipelas seems to be of very little use. Nor does internal medication seem to have any permanent effect on cancer, though in some cases large doses of arsenic, in others, iodide of potassium would seem to have brought some improvement.

Operation. Cancer can only be cured if thoroughly removed with the knife during its early stages. Partial operations, in which there is a large amount of infected tissue left behind, should never be undertaken. The neighboring lymphatic glands with their connecting lymphatics, should always be removed as well as the tumor itself.

Removal of foul fungating masses may sometimes be necessary, for though this operation may not prolong the patient's life, it will add greatly to his comfort.

CANCER OF BREAST.

The disease should be treated surgically in all cases. Every tumor of the breast that originates after the age of forty should be removed as soon as it appears, including the breast, axillary and supraclavicular glands. No time should be lost in trying to differentiate between cancer, fibroma, adenoma and cysts. We should not wait for retraction of the nipple and other late symptoms. Pastes of all kinds ought to be condemned. Early operation is the only chance of permanent cure and prolongation of life.

If the case appears late and the infection has already traveled by the lymphatics, remove the overlying skin, breasts, axillary and supraclavicular glands, fascia and pectoralis major muscle.

CANCER OF CERVIX UTERI.

Early diagnosis of this disease is of the utmost importance, because this is the most frequent form of cancer, and the most dangerous. When a woman over forty presents herself complaining of an irregular, bloody, foul-smelling discharge, vaginal examination should be made immediately. The physician who neglects to do so does not do his duty.

The only curative treatment for cancer of the cervix is early operation, which should consist of removal of the uterus tubes, ovaries, and retro-peritoneal lymph glands.

Frequently patients present themselves for treatment when operation is too late; these cases should be treated either by excision of the cervix or burning by red hot iron. This line of treatment makes the patient less offensive to herself and to those around her.

In advanced cases where the pain is usually very severe at intervals, enough morphine ($\frac{1}{4}$ to $\frac{1}{2}$ gr.) should be given to control it. For the reflex vomiting which is incessant sometimes for 24 to 48 hours, cocaine muriate tablets ($\frac{1}{2}$ to $\frac{1}{8}$ gr.) every 2 hours often give surprising relief. For the offensive discharge frequent douching with the stronger antiseptics (phenol, lysol, cresol) becomes necessary. If uterine hemorrhage occurs it becomes necessary to pack with gauze, which may be soaked in:

R Ichthyol.....	3 ii
Glycerini	3 ii
M. Sig. Use on tampon twice a day.	

CANCER OF INTESTINE.

Surgical treatment consists in resection of the bowel, making anastomosis, and short-circuiting the constriction. If the cancer is in the small intestine use the Murphy button; if in the large intestine and near the rectum, do colostomy.

If an operation is refused or is inadvisable, attend

to the general condition of the patient. Give stimulants and easily digested food by the mouth or rectum. Intestinal obstruction should be guarded against by regulating the bowels so that they move at least once daily.

CANCER OF LIP.

A V-shaped portion of the lip and a half inch margin of healthy tissue should be removed with the knife or scissors. The submental and submaxillary glands should also be removed although they may not appear to be enlarged, and any other enlarged glands should be removed as well.

CANCER OF LIVER.

Surgical interference is justified only when the cancer is single, primary, and favorably situated. In other cases the condition is hopeless, the duration of life varying from a few months to a year.

Medical treatment is only palliative. Morphine may be given hypodermically for the pain with the addition of a small quantity of atropine to lessen the tendency to constipation. The pain may also be relieved by hot or cold compresses, poultices, anodyne plasters, liniments, or counter irritants like tincture of iodine. The vomiting may be controlled by bits of cracked ice kept in the mouth, or by gastric lavage.

The diet should be nourishing and easily digestible. Milk with Vichy or lime-water, meat extracts, cereals and gruels may be given.

CANCER OF OESOPHAGUS.

It may occur in any part of the oesophagus, but is most frequently found at the upper and lower ends. If at the lower end the only operation that can be done to relieve the patient is gastrotomy, whereby he can be fed through a tube to prevent starvation.

If it occurs at the upper end, it spreads more rapidly to the surrounding tissues as the larynx, making it necessary to remove important structures. Dilata-

tion by bougies may help for some time, but haemorrhage and sloughing soon result.

CANCER OF PENIS.

Partial or complete removal is necessary, as well as the inguinal glands, whether they are enlarged or not. The strictest antiseptic precautions are necessary. Check the oozing of blood from the corpus cavernosum by pressure from iodoform gauze, and tie blood vessels as soon as they are cut.

CANCER OF RECTUM.

This form of cancer is most frequent between the ages of twenty and thirty.

The rectum should be entirely removed well up above the seat of the disease. The surrounding connective tissue and muscle should also be removed if infiltrated. The upper end should be brought down and stitched to the anus.

If the disease has already advanced too far for radical operation, nothing remains but colostomy, in which case the patient usually ends a miserable life on account of the continuous escape of the feces.

CANCER OF THE SKIN.

This form of cancer when it occurs on the face, especially in the aged, may be treated with success by X-ray exposures. Excision is sometimes necessary before applying the X-ray treatment.

CANCER OF STOMACH.

Early operative interference gives the only hope of complete recovery.

The medical treatment is merely palliative and is directed to relieving the pain, improving the digestion and keeping up the patient's nutrition.

If the cancer is at the cardiac orifice and prevents ready entrance of food into the stomach, use the stomach tube in feeding the patient and give liquid or semi-solid food.

If the cancer is at the pyloric orifice it may cause gastric dilatation and catarrh. Food should be given which will make small demands upon the stomach and leave little residue, e. g., milk, eggs, scraped beef, peptonoids and strained gruel. This may be supplemented, if necessary, with rectal feeding.

Pain may be allayed by hot or cold applications to the epigastrium, or by opium or sedatives, like hydrocyanic acid and chloroform. Lavage often allays pain and controls vomiting if due to retained and fermented food.

The appetite may be improved by bitters like calumba, gentian, and condurango, with hydrochloric acid and pepsin as useful adjuncts:

R.	Fluidextr. condurang.....	ʒ ii
	Strych. sulph.....	gr. ½
	Acid. hydrochlor. dil.....	ʒ iv
	Fluidextr. gentian. q. s. ad.....	ʒ iv

M. et Sig. One teaspoonful in a wineglass of water, through a tube after meals.

If the pain is very severe the following should be given:

R.	Acid. hydrocyan. dil.....	ʒ i
	Tinct. belladonn.....	ʒ iss
	Morph. sulphat.....	grs. iv
	Elix. digestiv. co. q. s. ad.....	ʒ iii

M. Sig. One teaspoonful three or four times a day.

CANCER OF TESTIS.

Castrate and remove both cord and cord vessels well within the internal ring. If the inguinal glands are involved, remove them at the same time.

CANCER OF TONGUE.

As soon as the diagnosis is made the whole or part of the tongue should be removed. But if the disease extends far back, or if the glands of the neck are very much enlarged or fixed, or if the jaw is involved, operation is useless.

CANCER OF (BODY OF) UTERUS.

Can only be diagnosed early by the scrapings from the uterus. Remove the uterus per vaginam with tubes and ovaries. This form of cancer is much less frequent and malignant than that of the cervix. There are the same indications for treatment as for cancer of the cervix, i. e., thorough removal.

CANCRUM ORIS.

Prophylaxis. Attend to the condition of the mouth during all infectious disease, e. g., diphtheria, scarlet fever, measles, etc. Frequent use should be made of antiseptic solutions, as:

R.	Sol. hydrogen. peroxid.....	ʒi
	Formalin.....	m. v
	Aquæ q. s. ad.....	ʒiii

M. Sig. Use as wash four times a day

Or:

R.	Potass. permanganat.	grs. xx
	Aquæ.....	ʒx

M. Sig. Use as wash every three hours.

General treatment. Patient should rest in bed and should have concentrated nutritious food; tonics such as quinine and iron, stimulants such as milk punch and liquid food. When the stomach is irritable nutrient enemata should be given.

Local treatment. Remove the gangrenous parts and arrest the progress of the disease into the sound tissue either by the knife, the paquelin cautery or nitric acid.

CANTHARIDES, POISONING BY.

Evacuate stomach by stomach pump or tube, if throat is not inflamed. If it is inflamed, inject apomorphin hypodermically. Allay the pain and strangury by opium and hot sitz baths. Give plenty of water and mucilaginous drinks, but no fats nor oils.

CARBOLIC ACID POISONING.

Carefully insert stomach tube, and wash out the

stomach with successive quantities of sodium sulphate (half an ounce in a pint of warm water), until there is no smell of carbolic acid in the liquid coming from the stomach.

Next empty the stomach and give white of egg in water freely.

Then give magnesium sulphate, half an ounce in warm water.

Give alcohol and general stimulants freely, and apply warmth to the extremities.

Artificial respiration and intravenous or rectal injection of salt solution may also be necessary. Strong alcohol is one of the best antidotes in carbolic acid poisoning.

CARBONIC ACID GAS, POISONING BY.

Prophylaxis. Care should be taken when exploring mines, deep wells, etc., where this heavy gas often accumulates. Before a workman enters these places, a lighted candle should be introduced beforehand. If carbonic acid gas is present the light will go out.

Treatment. Removal to the open air, artificial respiration and the administration of pure oxygen.

CARBON MONOXIDE POISONING.

Artificial respiration by itself is of no value, since a stable compound is formed between the carbon monoxide and the haemoglobin and the blood. Venesection and transfusion of fresh blood are to be recommended.

CATALEPSY.

External stimulation should be given at intervals to arouse consciousness: ammonia to the nostrils, cold douches, a pinch of snuff, faradization of the limbs or spine. Hypodermic injection of apomorphine (1/20 gr.) to produce nausea or emesis is often successful in arousing the patient. Rubbing turpentine along the spine is often successful. The fol-

lowing prescription is often useful in the milder forms:

R.	Chloroform.....	3ii
	Ether.....	3iv

M. Sig. Use thirty drops for inhalation.

In the intervals between attacks, firm moral treatment, removal from home influences, cold baths, aloetic aperients, iron, and antispasmodics, like valerian should be given:

R.	Extr. sumbul.....	grs. xlviii
	Extr. valerian.....	grs. xxxvi
	Asafœtidæ.....	grs. xxxvi

M. et ft. caps. No. xxiv.

Sig. One four times a day.

CATARACT.

Prophylaxis. Proper care of the eyes. Use of lenses ordered by competent oculists at frequent intervals instead of carelessly selecting them in a jewelry store. Diet and proper hygiene may do much to retard degeneration of the lens in cases due to diabetes, or to malassimilation in gouty or rheumatic persons.

Treatment. In the early stages of nuclear cataract, smoked or dark glasses may give some relief by favoring dilation of the pupil and permitting the entrance of rays of light through the clear cortex surrounding the opaque nucleus. For cortical cataracts this method is of course useless. The sight may often be much improved by keeping up moderate dilatation by using an ointment consisting of atropin ($\frac{1}{8}$ grain) and vaseline (4 drachm). There are frequently advertised numerous remedies and treatments "without the knife," which are mostly solutions of some mydriatic which by dilating the pupils, allow the entrance of more light and hence improve vision temporarily. But the treatment of mature cataract by drugs or apparatus is useless

and the long-continued use of mydriatics may induce glaucoma or chronic conjunctivitis.

Cure may be effected by one of several surgical operations. These consist in reopening a path for the rays of light to reach the retina, either by the side of the existing obstruction (iridectomy) or by its absolute removal. The latter may be effected in one of three ways: The cataract may be left in the eye, but be pushed aside from the axis of vision (reclination, depression); it may be caused to undergo absorption by being brought in direct contact with the aqueous humor (discission), or it may be removed bodily from the eye through an operation made for the purpose (extraction).

Iridectomy made early and effectually, may postpone the progress of lenticular opacity, if due to increased intra-ocular tension; in partial cataracts which have become stationary, iridectomy for artificial pupil may be done to expose the clear portion of the lens.

Sometimes in the onset of cataract the crystalline lens swells before it begins to become opaque, and by this change in refraction the aged person is enabled to read for the first time in many years without glasses. This is the so-called second sight. Generally if the patient lives long enough vision is almost totally lost, and operation is necessitated.

CATARRH (See Rhinitis).

CATHETERIZATION, DIRECTIONS FOR.

Sterilize the catheter before use. Cleanse the urethra, more especially the meatus. Sterilized vaseline ought to be used for the lubrication of the catheter. When introducing the instrument, keep the tip of the catheter close to the floor of the urethra and it will very seldom catch in any fossa. If any apparent obstruction occurs at the triangular ligament, withdraw the catheter a little, tilt it differently so that

it may scrape the roof of the urethra rather than its floor. When the instrument reaches the neck of the bladder, a sudden depression of the outer end will help it to enter.

If it is impossible to empty a distended bladder with a catheter, make a supra-pubic puncture with an aspirator needle.

CHAFING (ERYTHEMA INTERTRIGO).

Keep the rubbing surfaces apart by absorbent cotton after bathing them with a lotion of boric acid.

The following dusting powder may be used:

R. Zinci stearat..... 3iv

Sig. Apply freely several times a day.

CHALAZION.

The tumor or nodule should be freely incised from the inside of the eyelid after anaesthetizing the conjunctiva with a 4% solution of cocaine. The incision should be along the inner side of the conjunctiva and the sac should be thoroughly curetted. It takes several days for the tumor to disappear on account of the swelling caused by the blood-clot within the cavity. Apply hot boric acid dressings. Correct errors of refraction.

CHANCROID (SOFT CHANCRE).

When the sore is mild, simple cleanliness and the use of hydrogen peroxide followed by the local use of an ordinary antiseptic powder will usually be all that is necessary:

R. Bismuth. subnitrat.

Acid. boric.

Hydrarg. chlor. mit..... 5ii

Sig. Use twice a day.

Or:

R. Acetanilid.

Acid. boric..... 5ii

M. Sig. Use twice a day as dusting powder.

If the venereal ulcer tends to spread, clean it, apply

cocaine, and then cauterize with glacial acetic acid, nitric acid or with the actual cautery.

In phagædemic cases general anæsthesia may be necessary, then the use of scissors or a sharp spoon followed by cauterization of the raw surface. Continuous immersion of the hips in a sitz bath as hot as the patient can bear it often gives relief. If the case is an aggravated one it may be necessary to give stimulants, to take invigorating and tonic measures and to improve the nutrition and give laxatives.

If phimosis is present and the ulcers can not be treated, circumcision or dorsal incision becomes necessary.

Mercurial treatment for this sore is of no avail.

CHANCRE, SYPHILITIC.

Mild antiseptic applications are all that is usually necessary because the sore tends to heal spontaneously, but constitutional treatment should begin as soon as the diagnosis is made. (See Syphilis.)

If the chancre is in a place where it is difficult to keep the parts clean, an incision of the prepuce or a circumcision or an incision of the hymen may be necessary. Wash the chancre with soap and water, follow with hydrogen peroxide, and dust on a powder consisting of one part of calomel to three of bismuth subnitrate.

To preserve cleanliness about the female genitalia, antiseptic gauze may be necessary.

Inform the patient of the infectious character of the discharge, and warn him to use separate utensils, as well as soap, towels, etc. In some cases it might be as well to temporarily isolate the patient.

CHAPPED LIPS, HANDS, AND FACE.

The skin should be protected as much as possible from atmospheric changes. When the hands or face are washed or wetted they should be carefully rubbed dry with warm towels. Avoid partially

drying with damp cloths and then heating before a fire. The following ointment is very useful:

R.	Liq. carb. deterg.	5iss
	Hydrarg. ammon.	gr. xxv
	Lanolini.	3ii

M. Sig. Apply freely at night to the hands with gentle friction and cover with chamois gloves.

For chapped lips use the following:

R.	Tinct. benzoin. co.	3i
	Sig. Apply several times a day.	

CHICKEN POX (See Varicella).

CHIGOE, (CHIGGER, JIGGER, SAND-FLEA).

Prophylaxis. Thorough cleanliness of person and rooms. Bathe feet, forbid walking barefoot. Disinfect room with insect powder. Feet should be anointed frequently with a pungent essential oil, such as oil of cloves. Natives employ infusion of tobacco leaves.

Extract insect at earliest possible moment, intact if possible. If part of insect remains behind, touch part with pure carbolic acid and dress with mercurial ointment.

CHILBLAINS (DERMATITIS CALORICA, PERNIO).

The skin of a person subject to chilblains should not be warmed too suddenly after exposure to cold. The circulation should be re-established gradually by dry friction, or by exercise, or by rubbing the part with camphorated alcohol or eau de Cologne. Or the patient should rub the part with snow or ice-water before entering the house. Warm clothing should always be worn. If the skin is unbroken the part should be painted with dilute hydrochloric acid, tincture of opium, or tinct. of iodine, e. g.:

R. Tinct. iodini

Tinct. opii

Tinct. arnicae aa 3ii

M. Sig. Apply with a camel's hair pencil twice a day.

Internal remedies. The defective circulation may be improved by drugs such as kola, digitalis and iron, e. g.:

- R. Ferri reducti.....grs. xxiv
Extr. digital.....grs. ii
Caffein. citrat.....grs. xii
M. et ft. caps. No. xii.
Sig. One three times a day.

CHLOASMA UTERINUM.

The pigment is always slow to disappear, but local treatment assists in its removal. The remedies used have a bleaching effect, and by causing desquamation of the epidermis help to remove the pigmented cells. Pure peroxide of hydrogen may be applied to the spots twice a day.

Or the following may be prescribed:

- R. Hydrarg. ammoniat.....grs. xl
Bismuth. subnitrat.....grs. xl
Vaselinii.....5i
Olei rosæ.....gtt. i
M. Sig. Apply gently to the discolorations at night, and wash off in the morning with green soap.

CHLORAL HABIT (CHLORALISM).

Isolate patient and give careful attention; prevent access to drug. For the sleeplessness give bromides. A mixture of trional (15 grs.) and veronal (5 grs.) is also of benefit. Heart may be stimulated by ammonia, strychnine and digitalis. Give tonics, nourishing food and agreeable occupation. Electricity and massage are often of service.

The above mixture in prescription form would be:

- R. Trional.....5iii
Veronal.....5i
M. et ft. chart. No. xii.
Sig. One at bedtime.

The cardiac stimulant would be prescribed thus:

- R. Ammon. carb..... grs. xxiv
Strychnin. sulph. gr. $\frac{2}{3}$
Digitalin..... gr. $\frac{1}{4}$
M. et ft. caps. No. xxiv.
Sig. One three times a day.

CHLOROFORM POISONING (During anaesthesia).

Place the head lower than the body and pull out the tongue. Give the patient fresh air and make him inhale amyl nitrate. Apply artificial respiration, 20 to the minute. Give strychnine (gr. $\frac{1}{10}$) hypodermically, and diluted brandy by the rectum. As a last resource bleeding through the jugular vein may be tried.

Opening the thorax and compressing the heart has recently, in several instances, proved successful.

CHLOROSIS.

Iron is the chief indication. It very rapidly restores the haemoglobin. The best method of administration is by Blaud's pills:

- R. Pil. Blaud..... gr. v.... No. c.
Sig. One four times a day after meals.

Or:

- R. Mangan. dioxid..... grs. xii
Mass. ferr. carbonat..... 5ii
Zinci phosphid..... gr. iss

M. et ft. caps. No. xxiv.

Sig. One after each meal.

Iron should be given for three months to prevent relapse.

In severe constipation give the following pill:

- R. Aloin..... gr. $\frac{1}{8}$
Extract. belladonnæ..... gr. $\frac{1}{8}$
Strychnin. sulph..... gr. $\frac{1}{60}$
Pulv. ipecac..... gr. $\frac{1}{16}$

M. et ft. pil. No. 1.

Sig. Two at bedtime or one after every meal

In severe cases where the heart is weak the patient should be kept in bed in a well-ventilated, bright, sunny and cheerful room and should avoid mental excitement. The diet should be light and nutritious: milk, soups, beef tea, eggs, and toast.

CHOLANGITIS et CHOLECYSTITIS.

When there are no indications of suppuration, the patient should rest in bed and be put on a light diet. Tonics, medicines to allay gastro-intestinal irritation, morphine to allay pain and mild laxatives may be given.

Ten grain doses of salicylic acid, given three times a day, increases the flow of bile and prevents the inflammation from extending.

When signs of suppuration occur, immediate surgical interference is necessary. This consists in laying open and draining the gall-bladder. When there is evidence of persistent obstruction and infection the stones should be removed from the common duct.

CHOLELITHIASIS (GALL-STONE DISEASE).

Prevention. Diet should be mixed and meals should be limited in amount and taken frequently to cause a constant flow of bile. The meals should be taken with plenty of plain or mineralized water. Prohibit alcohol. The patient should take regular exercise in the open air. Plenty of water-drinking between meals. Sugars and fats should be avoided.

Congestions and inflammations in the portal system and dependent organs are diminished and controlled by the spa treatment. For this Neuenahr, Kissingen and Vichy in Europe and Bedford, Sharon and Las Vegas in this country are preferred. Carlsbad has too many attractions to be of much benefit as they divert patients from the serious business of attending to their health.

Treatment of an attack of hepatic colic. For the

great pain give morphine ($\frac{1}{4}$ gr.) and atropine ($\frac{1}{160}$ gr.) hypodermically. If the pain is agonizing, keep the patient lightly under the influence of chloroform by inhalation until the effect of the morphine is evident. A few doses of antipyrine in hot water given early in the paroxysm and hot applications to the hepatic region are often very useful. Nausea, pain and vomiting are often controlled by gastric lavage and the administration of carbonated water and champagne.

Surgical intervention. Surgical treatment should be confined to cases in which the mechanical removal of the foreign body is necessary, e. g., when attacks of colic occur so frequently and of such severity that the patient's life becomes a burden, or in persistent obstruction of the common duct, etc.

Phosphate of soda given for a long time continuously has proved of great benefit in lessening the number and severity of the paroxysms. It may be prescribed as follows:

R. Sod. phosphat. gran. effervescent..... 3xii

Sig. One heaping tablespoonful three times a day twenty minutes after meals.

Biliary antiseptics as salicylic acid, salol, sodium benzoate, and aspirin have proved of considerable value in the treatment of this disease.

The following prescriptions are of benefit:

R. Sod. benzoat..... 3ii

Acid. salicyl..... 3ii

Menthol..... grs. vi

M. et ft. caps. No. xxiv.

Sig. One four times a day with hot water.

Or:

R. Acid. glycocholat..... grs. xxiv

Aspirin. 3ii

M. et ft. caps. No. xxiv.

Sig. One four times a day in hot water.

CHOLERA, ASIATICA.

Rest in bed. Evacuations should be received in a bed-pan. Give abundant fluid. Give stimulants, hot soups and broths.

Check the preliminary diarrhoea, vomiting, cramps and collapse, by combinations of opium with astringents and antispasmodics:

R.	Acidi sulph. aromat.	5iv
	Spiritus camphoræ....	3iv
	Spiritus chloroformi.	3ii
	Tinct. capsici.....	5ii
	Tinct. opii deodorat.....	5ii
	Fluidextracti haematoxyli.	3i
	Vini rubri q. s. ad.	3viii

M. Sig. Shake and give two teaspoonfuls, every half to one hour.

If circulation fails as shown by feeble and thready pulse, give mild stimulant, e. g., iced champagne and soda water, weak brandy and water (iced), in tea-spoonfuls, or ammonia, or spirit of chloroform well diluted.

In case of collapse hypodermic injections of ether, or cautious doses of nitrite of amyl, or nitroglycerin, may be given, or the intravenous injection of warm saline solutions, e. g., one drachm of sodium chloride and 45 grs. of sodium carbonate to the quart of sterile water.

The bodily heat should be conserved by hot applications, or hot baths, or by rubbing the skin with soft cloths or dry powdered ginger.

If urinary excretion is suppressed, dry cupping, hot fomentations, and poultices may be applied.

Prophylaxis in the sick room. Isolate the patient and take the greatest care to destroy all the cholera germs in the faeces and vomitus, on the bedding and clothing, and on the hands or persons of those attending him. As soon as the evacuations are received in the bed-pan they should be disinfected before being

disposed of. For this fresh chloride of lime may be used, a large heaping tablespoonful of the powder being added to each quart of the evacuations and thoroughly mixed with them. In half an hour the mixture may be regarded as harmless. The attendant's hands immediately after coming into contact with the patient should be disinfected with a three per cent solution of carbolic acid. This carbolic solution should also be used to cleanse the patient with, and to soak sheets and linen in for twelve hours.

The bodies of the dead should be disinfected or wrapped in a sheet wet with solution of corrosive sublimate (1 to 1000), and placed in a tight coffin upon a layer of some absorbent material. The sick room should be disinfected with sulphurous acid gas and should be well aired before being again occupied.

CHOLERA, PERSONAL PROPHYLAXIS.

Persons may render themselves specially liable to attack by cholera by such circumstances as bodily fatigue, mental worry, panic, disorder of stomach from consumption of raw fruits and vegetables (melons, cucumbers, etc.), decomposing animal food, especially fish and shell-fish, abuse of alcohol, drinking impure water or milk, the use of purgatives, especially saline medicines, exposure to cold and anything tending to depress the general vigor and derange health. Well persons should avoid infected localities, and if possible remove to a higher and drier place, where the disease is not prevalent. Some are of the opinion that protection against attack is got by the administration of quinine and by the mineral acids. but this is doubtful.

Attempts have been made by Haffkine, Kolle, Strong and others to render the system immune to cholera infection by the injection of vaccines.

CHOLERA, PREVENTION OF, BY SANITARY OFFICERS.

Inland quarantine is an acknowledged failure, because dissemination of the disease may be effected by other agencies than human—by insects, birds, animals, wind or water.

Maritime quarantine though still practiced by some nations, is probably also inadvisable since detaining large numbers of men in unwholesome lazarettos, subject to infection by new arrivals, may turn out disastrous.

The best method of dealing with cholera, as also with plague and yellow fever is: (a) a system of accurate and early information; (b) careful inspection; (c) isolation of the sick and suspected, and (d) vigorous sanitation both general and special.

Good drainage and good water-supply prevent cholera by making it impossible for the faeces of one person to gain access to the drink or food of another. Cholera is most likely to take on its epidemic character on a soil which is porous, more or less charged with decomposing organic matter, moistened with water, and having its interstices filled with air. The prevalence of cholera in a country largely depends upon the habits of the people, especially on habits of carelessness as to the cleanliness of food and drink.

CHOLERA, INFANTUM.

Prophylaxis. The infant should have proper food, good nursing and wholesome surroundings, including cleanliness of person, of clothing, of nursing bottle, etc. Sudden changes of temperature ought to be guarded against. If possible, send the child to the country, for fresh air is of the greatest importance.

Treatment. All food, especially cow's milk, should be stopped at once. On account of the great irritability of the stomach, hypodermic medication must be resorted to. Begin by giving a hypodermic injection of morphine sulphate (gr. $\frac{1}{100}$) with

atropin sulphate (gr. $\frac{1}{60}$) to an infant from six months to one year of age. Remarkable results frequently follow this treatment. If the vomiting and diarrhoea do not cease in one or two hours, repeat the dose. As soon as the gastric irritability ceases, give the following:

R. Hydrarg. cum creta.....grs. vi
Pulv. Doveri.....gr. i
Bismuth. salicylat.....grs. xii
M. et ft. chart. No. xii.

Sig. One every three hours.

The high fever is best controlled by cool sponging.

In order to relieve the intense thirst high rectal enemas of saline solution (one tablespoonful of salt to two quarts of water) may be given. Normal salt solution may also be given under the skin to the amount of one pint in twenty-four hours. Washing out the stomach also gives relief from vomiting.

When the surface of the body is cold and the temperature is subnormal, give a warm mustard bath and apply hot bottles to the extremities.

After the urgent symptoms have subsided, gradually return to the child's usual amount of food. Begin with barley water or albumen water. Skim milk and buttermilk are excellent articles in this disease. Stimulants such as brandy are also of service.

CHORDEE.

Rest in bed, low diet, purgatives, monobromate of camphor with opium for the pain. Locally hot sitz baths, hot or cold compresses and leeches to the perineum. If an abscess forms, open early to prevent it from bursting into the urethra. In chronic cases galvanism may help to absorb infiltrated material. (See also **Aphrodisia**.)

As a preventative measure give the following prescription in gonorrhœa, which is usually the cause of this condition:

R. Camphoræ

Extr. opii, āā.....grs. xii

M. et. ft. caps. No. xii.

Sig. One at bedtime from the beginning of the gonorrhea onwards.

A good prescription for the chordee is as follows:

R. Sodii bromidi..... 5ii

Potass. bromidi..... 5ii

Chloral hydrat..... 5i

Aquaæ..... 5i

Syr. simpl. q. s. ad..... 5ii

M. Sig. One teaspoonful every four hours and at bedtime.

CHOREA.

Patient should have rest of both body and mind. Remove child from school or abridge studies. If weather is fine, amusement, but not exercise in the open air is advisable. Patient should be secluded for a few hours daily in a dark room. Sea air and sea baths are often beneficial. Massage, warm baths, generous diet, plenty of milk, cream, fresh butter, substantial soups, and condensed nitrogenous nourishment. Prohibit tea and coffee, and do not gratify capricious appetite of patient.

Examine patient for errors of refraction, adenoid growths, enlarged tonsils, worms, haemorrhoids or other peripheral irritation and treat cause if found. If there is a history of rheumatic fever, administer quinine salicylate and aspirin.

The drugs used in this disease are arsenic in full doses, strychnine and iron.

Arsenic is the drug which is of greatest benefit, it should be given in gradually increasing doses:

R. Liq. potass. arsenit..... 3i

Sig. Five drops in water, three times a day. Increase one drop per dose every three days.

If rheumatic endocarditis is present, give salicylates.

Quinine is also of considerable benefit and may be combined with the salicylates, e. g.:

R.	Aspirin.....	3ii
	Quinin. sulph.....	grs. xxiv
	Acid. arsenios.....	gr. $\frac{1}{4}$

M. et ft. caps. No. xxiv.

Sig. One every four hours.

If the choreic movements are very violent, bromide of potassium and chloral hydrate are indicated. To a child ten years old give:

R.	Potass. bromid.....	5ii
	Chloral hydrat.....	5ii
	Aquæ.....	5ii
	Syr. limonis.....	q. s. ad 5iii

M. Sig. One teaspoonful three times a day.

Chorea during or following pregnancy receives the same treatment. If abortion occurs see **Abortion, Inevitable.**

CIRRHOSIS (See Liver, Cirrhosis of).

CLIMACTERIC, DISORDERS OF.

The headaches and reflex nervous symptoms should be relieved by potassium bromide. If there is constipation and portal congestion, give saline purgatives or blue pill with aloes. Bleeding and cupping are also of benefit. The diet should be plain and unstimulating. Forbid beer and spirits and allow a little light wine if at all. Cold bathing followed by brisk rubbing and lukewarm baths taken at intervals of a few days, tend to calm the nerves. If there is irritability or melancholia the patient should be encouraged by a favorable prognosis.

For the hot flushes give a nerve sedative such as:

R.	Sod. brom.....	5iv
	Potass. brom.....	5ii
	Tinct. valerian.....	5iv
	Tinct. hyoscyam.....	5ii
	Elix. simpl. q. s. ad.....	5iii

M. Sig. One teaspoonful in water three times a day.

Or:

R. Extr. valerian.....grs. xliv
Asafœtid.....grs. xxx
Extr. sumbul.....grs. xxxvi
Ferri citrat.....5ii

M. et ft. caps. No. xxiv.

Sig. One three times a day.

COAL-GAS POISONING.

Fresh air, stimulants, transfusion of blood or of normal salt solution. Inhalation of oxygen may also be tried.

Give hypodermic injections of nitroglycerin (1 $\frac{1}{2}$ gr.) every three hours. This is almost a specific.

For the intense headache following coal gas poisoning, give:

R. Sodii bromidi.....5iiss
Antipyrin.....5i
Aquaæ.....q. s. ad 5ii

M. Sig. One teaspoonful every two hours, if necessary.

COCAINIZATION, INTRASPINAL.

The object in this operation is to spread cocaine solution over the surface of the spinal cord and beneath the arachnoid. Freeze the skin at site of the operation with a freezing spray, or anæsthetize it with a hypodermic injection of cocaine. Use a gold or platinum plated needle about four inches long, and a syringe which holds two to four cubic centimeters and which can easily be attached to the needle after it has entered the canal. The patient should be seated leaning forward so as to curve the back and open the intervertebral spaces. The injection is usually made between the third and fourth lumbar spines. The needle is entered about half an inch to the right of the middle line and passed forward.

inward and upward to a depth of about three inches in the ordinary adult, until the resistance offered by the tissues is felt to have been passed, and the point to have entered a cavity. The escape of a drop or two of cerebro-spinal fluid will indicate that the spinal canal has been entered. Attach the springe to the needle and inject a solution containing about half a grain of cocaine.

COCCYGODYNIA.

Look for cause and treat it if found, e. g., uterine, ovarian or rectal disease. If no such cause is found try the ordinary remedies for neuralgia such as opium, quinine, arsenic, salicylate of soda, blisters or electricity.

If these remedies fail, the coccygeal bones may be isolated from the surrounding tissues by means of a tenotomy knife, or remove the coccyx entirely.

COLIC, FLATULENT INTESTINAL.

Recurrent attacks of colic may be due to lead poisoning or local disease, e. g., gastric ulcer, appendicitis, gall stones or kidney stones.

First stop the pain and spasm by mild opiates and carminatives, warming agents for the stomach and bowels, such as cardamom, mint, aromatic spirits of ammonia. The following is useful:

R.	Pulv. opii	grs. xii
	Camphoræ.....	grs. xii
	Capsici.....	grs. vi
	Zingiber.....	grs. xii

M. Ft. pil. xii.

Sig. One pill, repeated in two hours, if necessary.

The pain may also be relieved by hot fomentations, mustard sinapisms, turpentine stypes, poultices, or by a copious enema of warm water.

In the more severe attacks, chloroform and ether by inhalation or by the stomach, or morphine ($\frac{1}{4}$ gr.) with atropine ($\frac{1}{16}$ gr.) hypodermically, may be necessary

After the pain has been allayed, give mild cathartics or enemata to evacuate the bowels:

R.	Hydrarg. chlor. mit.....	grs. iii
	Sacchar. lact.....	grs. xii
	Sod. bicarb.....	grs. xxx
	Extr. colocynthid.	grs. iv

M. et ft. chart. No. xii.

Sig. One every two hours.

In cases where there is a habitual tendency to colic, the following pill may be given:

R. Extr. gentian.

Rhei, āā. 3*i*

M. Ft. pil. xx.

Sig. One or two pills thrice daily.

All food should be stopped for 24 hours in order to rest the stomach and intestines.

COLIC, HEPATIC (See Cholelithiasis).

COLIC IN CHILDREN.

Prophylaxis. Colic in infants at the breast is most frequently caused by indiscretions in the diet of the mother. She should avoid cabbage, sauerkraut, acid fruit, etc. Frequently also it is due to an excess of proteids in the mother's milk, and this can be prevented by the mother taking daily fresh air exercise, and excluding from her dietary pastry, pies, sweet-meats, and by restricting the quantity of meat.

Colic in bottle-fed infants is always due either to improper food or to an excess of fat or proteids, as shown by the presence of curds in the stools. Colic may also be due to a child being allowed to empty its bottle too fast; each feeding should occupy twenty minutes.

Flannel bands ought to be worn by infants until they are at least 18 months old.

Colic in older children is usually due to improper diet, or to swallowing air when exposed to the wind.

Treatment. To relieve an attack of colic give a

few drops of brandy or compound spirits of ether well diluted with water, e. g., for a child 6 months to 2 years old, give:

R. Spirit. aether. co..... 3*i*

Sig. Five to ten drops in cold water every two hours.

This should be followed by a high rectal enema of warm water and the application of hot flannels to the abdomen.

If these measures fail, give the following to a child 6 months to 2 years old:

R. Sodii bicarb. grs. ii

Tinct. opii deodorat. gtt. ii

Olei ricini..... 5*i*

M. Sig. One dose.

Children predisposed to colic should be given small doses of belladonna or the bromides, e. g.:

R. Sodii bromidi..... grs. xvi

Potass. bromidi..... grs. xii

Tinct. belladonn. gtts. viii

Aq. menth. pip. 3*iii*

Aq. anisi..... q. s. ad 3*ii*

M. Sig. One teaspoonful every four hours.

COLIC, RENAL (See Renal Calculus).

COLITIS, ACUTE (See Ileo-Colitis Acute).

COLLAPSE (See Fainting).

COLOR BLINDNESS.

A medical practitioner is occasionally asked to test a patient for color blindness, to test his fitness for the occupation of pilot, railway engineer, etc. Those who are color blind cannot distinguish between the red and green lights ordinarily used as signals. The proper way to test applicants is by the "Holmgren method," which requires him to select from a pile of worsteds of various colors, those shades which seem to him to resemble standard skeins of green and pink. Simply asking the applicant to name colors which are shown to him does not give satisfactory results.

COMEDO (See Blackheads.)

COMPLEXION, CARE OF.

The face should be washed twice daily in cold water to improve the circulation in the skin and delay wrinkles. If the complexion is sallow, pinching the face by the fingers improves the complexion. Cold creams are mixtures of a solid fat, like spermaceti, with an oil such as almond oil, and a fragrant substance added:

R.	Ol. amygd. express.....	3vii
	Aq. rosæ fort.....	3iiss
	Spermaceti.....	3iss
	Cer. alb.....	3iss
	Sod. borat.....	3ss

M. Sig. Apply twice daily.

These cold creams are not injurious to the complexion.

Toilet or face creams are mucilaginous preparations containing tragacanth and other ingredients, and are pleasant applications for a fissured or chapped skin.

Face powders consist of one or more of the following: talcum, starch, bismuth, chalk, zinc oxide, magnesia, flour, etc. They are harmless and often improve the appearance.

CONCEPTION, PREVENTION OF.

This may be necessary in cases of contracted pelvis, obstruction from tumor or other similar cause. It is best done by tying the Fallopian tubes in two places and cutting between the ligatures. Tying the tubes in a single place cannot be depended upon. The successful operation will not interfere with menstruation, but will effectually prevent future pregnancies.

The ovaries may be removed or even the entire uterus, but this should only be done in case of disease, and not merely for the purpose of sterilizing the patient. In the case of a single woman this is a serious moral question.

Artificial sterility is only justifiable if it saves the

lives of certain women as in cases of syphilis, tuberculosis, insanity, epilepsy, heart disease, diabetes, nephritis, cancer, etc., and at the same time avoids feticide.

Sometimes a separation, temporary or permanent, may be suggested between husband and wife. Or coitus may be restricted to the so-called agenetic period (from 17 to 24 days after the cessation of menstruation), but this only diminishes the risk of impregnation and does not prevent it with certainty.

Some authorities recommend antiseptic hot douches after coitus, e. g., a tablespoonful of tannic acid, boric acid or alum in two quarts of hot water to be used while in the recumbent posture immediately after coition. But the ethics of this procedure are doubtful. Be this as it may, the practitioner under no circumstances should sanction the use of such debilitating means of preventing conception as the coitus interruptus, the coitus reservatus, the wearing of coverings for the penis, or obturators for the uterus. These deleterious practices produce in women such disorders as endometritis, ovaritis, leucorrhea, dysmenorrhea, metrorrhagia, as well as sterility; while in man, they frequently produce neurasthenia.

CONDYLOMATA.

Extreme cleanliness should be insisted on. If the lesion is small, keep the part dry and apply an astringent. Larger condylomata may be removed by excision or by caustics, e. g.:

R. Liq. hydrarg. nitrat..... 3*ii*

Sig. Apply locally with match stick or glass rod.

Small ones are frequently cured by washing with a solution of chlorinated soda and dusting with:

R. Hydrarg. chlor. mit.

Bismuth. subnitrat.

Acidi borici, $\ddot{\text{a}}$ $\ddot{\text{a}}$ 3*ii*

M. Sig. Use twice a day.

For still larger growths ligature of the pedicle or the Paquelin cautery may be necessary.

CONJUNCTIVITIS, ACUTE CONTAGIOUS. (PINK EYE.)

In the inflammatory stage the eye should be frequently washed with a saturated solution of boric acid. Ice compresses of the same solution afford considerable relief. When the discharge becomes mucopurulent then the lids should be anointed with vaseline to prevent them from sticking together.

Sulphate of zinc in the strength of one grain to the ounce of distilled water should now be used, a few drops in each eye three or four times a day. Poultices of all kinds should be avoided, they encourage corneal ulceration.

After the acute symptoms have subsided the lids should be painted daily with a 5% solution of protargol.

Prophylaxis. Isolation must be enforced, especially in schools, public institutions and barracks. Each individual should have his own soap and towels. The fingers should be kept from the eyes.

CONJUNCTIVITIS, CATARRHAL.

In all forms of conjunctivitis extreme cleanliness is necessary, both of patient himself, and of all towels, utensils, etc., used by him. Isolate him if necessary and attend to his general health. A mild astringent lotion of silver nitrate solution (ten grains to the ounce) or argyrol (30 to 50%) applied locally will often shorten the attack. Patient may go out of doors in mild weather for fresh air and exercise if he wears protection glasses. In ordinary simple conjunctivitis the use of atropin is not necessary.

The following prescriptions refer to the above treatment. In the acute stage, give:

R.	Sodii biborat.....	grs. xii
	Aquaæ camphorat.....	3iii
	Sat. sol. acid. boric. q. s. ad.....	3iv
M. Sig.	Instil every two hours.	

After the acute stage of inflammation is over give a mild astringent such as:

- | | | |
|---------|-------------------------------|---------|
| R. | Zinci sulphat. | grs. v |
| | Acid. boric. | grs. xx |
| | Aquæ destillat. q. s. ad. | 3ii |
| M. Sig. | One or two drops twice a day. | |

CONJUNCTIVITIS, FOLLICULAR.

The follicles should be touched twice a week with copper sulphate. Very large follicles should be treated by expression.

The patient should be placed on tonics such as the syrup of the iodide of iron, one-half teaspoonful in water after each meal taken through a glass tube.

A hygienic mode of living and a change of occupation frequently add to the rapidity of recovery.

The lids should be painted daily with a solution of nitrate of silver (two grains to the ounce of distilled water).

CONJUNCTIVITIS, PURULENT.

Pus should not be allowed to accumulate in the eyes. Severe cases require isolation and rest in bed in a darkened room. The eye should be cleansed every few minutes day and night. When the discharge first appears apply an astringent lotion every few hours, and a caustic application like silver nitrate solution (20 grains to the ounce) to the inner surface of the lids once a day. If only one eye is affected the other should be closed with a glass watch-crystal fastened over it with an adhesive plaster.

If the case is seen soon enough the disease may be aborted by a thorough cleansing and a caustic application of the above silver nitrate solution to the inner surface of the lids.

CONSTIPATION, DIET IN.

The following articles of diet should be avoided: New bread, pastry, peas, beans, new potatoes, nuts.

If eggs are taken they should be eaten in moderation and lightly cooked in the form of scrambled eggs. Rice, tapioca, etc., should only be taken with fruit, jam or honey. Milk should only be taken in small quantities or mixed with Vichy.

The following articles should be allowed: Clear soups, fish, meat (except veal or pork), poultry, game, ham, bacon, the coarser breads with bran and whole-meal, gingerbread, oatmeal, cabbage, cauliflower, sprouts, celery, spinach, salads, onions, apples, figs, prunes, dates, pears, oranges, grapes, bananas, strawberries, gooseberries, currants, jam, golden syrup, molasses, preserved fruits, coffee, beer, water, Vichy, Kissingen, Carlsbad

CONSTIPATION, HABITUAL.

Avoid medicinal treatment as far as possible. The patient, if an adult, should drink at least three pints of fluid daily. Hot water, with or without a saline aperient should be slowly sipped immediately on rising in the morning. Two wineglassfuls may be thus sipped while dressing. An equal quantity of hot water should be drunk at bedtime. Tea should always be freshly made and never taken strong or with meat. Laxative articles of food should be taken such as fruit, jam, honey or treacle with blanc mange or rice. Every night and morning stewed figs, baked apples, bananas, etc., may be taken. To avoid chills the body should be warmly clad and the feet kept warm and dry by thick shoes, often changed, with cork or asbestos insoles. Abdominal massage by the patient for ten minutes before rising, especially digital kneading in the direction of the colon, should be carried out regularly. Attempts should be made every morning at a regular hour to get the bowels to act whether there be a desire or not. In addition there should be regular exercise, especially of those kinds which bring the abdominal muscles into play, e. g., golf, fencing, skipping. There should also be

cold bathing or cold sponging followed by sharp friction with a rough towel and flesh-glove to secure vigorous action of the skin.

The drug treatment of constipation always requires caution. Purgatives are hardly ever indicated. Mineral waters such as Hunyadi-janos, Friedrichshall, Saratoga, Bedford are of service because of their mineral ingredients, as well as because they induce the patients to drink large quantities of fluid which otherwise they would not do.

An excellent pill for chronic constipation is one containing aloes, strychnine and belladonna. The aloes acts especially on the colon, the strychnine overcomes atony of the intestines, and the belladonna prevents griping:

R.	Aloini.....	gr.	iv
	Strychnin. sulphat.....	gr.	$\frac{1}{3}$
	Extracti belladonn.	gr.	iii

M. ft. pil. No. xxiv.

Sig. One pill at bedtime.

Cascara sagrada, in doses of 30 minims and over, of the fluidextract is an excellent mild laxative.

Cold or hot water injections may be practiced daily as an adjuvant to other treatment and enemas of soap and water or suppositories of glycerin are of some service.

In cases of mechanical rectal obstruction it may be necessary to remove the impacted feces with the fingers or with a scoop.

In some inveterate cases of constipation, it may be necessary to have recourse to drugs after all. The following may prove of service:

R.	Extr. cascar. -agrad.....	grs.	ii
	Aloin.....	gr.	$\frac{1}{8}$
	Extr. podophylin.....	gr.	$\frac{1}{4}$
	Extr. colocynthid.....	gr.	$\frac{1}{4}$
	Extr. belladonn.....	gr.	$\frac{1}{8}$

M. et ft. caps. No. 1.

Sig. One at bedtime.

Or:

R.	Phenolphthalein.....	gr.	i
	Strychin. sulph.....	gr.	60
	Aloin.....	gr.	1/2
	Extr. podophylin.....	gr.	1/4

M. et ft. caps. No. 1.

Sig. One at bedtime.

Or:

R.	Extr. cascarr. sagrad. fluid	ʒii
----	------------------------------------	-----

Sig. Ten, twenty, or more drops, as required in water, before each meal.

Or:

R.	Ferri sulph. exsic.....	gr. iss
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	Extr. nuc. vomic.....	gr. 1/4
--	-----------------------	---------

	Extr. belladonn.....	gr. 1/4
--	----------------------	---------

	Pulv. rhei co.	gr. iii
--	----------------------	---------

M. ft. pil. No. 1.

Sig. One (or more if required), each night.

CONVULSIONS IN CHILDREN.

The first indication is to stop the convulsions by administering carefully a small quantity of chloroform by inhalation from a handkerchief or by placing the child in a hot mustard bath.

Next treat the cause, whether it be worms, gastrointestinal disorders, constipation, rickets, whooping cough, onset of acute infectious disease, meningitis, or injuries. There is often an inherited predisposition.

If indigestible food is the cause, give an emetic, and also a purgative or a large rectal enema. If fever is present, give a hot pack or hot bath, with ice to the head.

Drugs used: Potassium and sodium bromides, chloral hydrate, belladonna.

For a child one year old, give:

R.	Chloral. hydrat.....	ʒss
	Sodii bromid.....	ʒss
	Potass. brom.....	grs. xii
	Aquæ.....	ʒi
	Syrup. simpl. q. s ad.	ʒii

M. Sig. Give one teaspoonful. Repeat if necessary, in one hour.

CORYZA (See Rhinitis, Acute).

COUGH.

Is not a disease, but a symptom. It may sometimes be beneficial when it expels injurious matters from the lungs. When the cough is insufficient it may be stimulated and when it is excessive should be restrained.

In treating cough look for and treat any source of irritation in the pharynx, larynx, trachea, bronchi, lungs, pleura, or stomach. It may also be due to elongated uvula, wax in the ear, nasal polypi, enlarged tonsils, etc.

If the cough is violent and paroxysmal it may be due to whooping cough or to a foreign body in the larynx.

If the cough is due to enlarged uvula or relaxed palate, treat with astringents.

If due to pharyngeal inflammation ice and cold applications give relief. In some cases inhalation of the vapor of boiling water, medicated with opium, hops, cannabis indica, etc., often is of service.

The cough of chronic pharyngitis is relieved by astringent lozenges of guaiac or catechu.

The cough of acute laryngitis is relieved by inhalation of vapor impregnated with tincture of benzoin. co. and paregoric.

For the cough of chronic laryngitis, give bromides and opiates, and apply a cold compress over the front of the neck at bedtime.

In the cough of congestion due to deficient action of the heart, give digitalis, strychnine and strophanthus.

For the cough of acute bronchitis, give ammonium chloride if the expectoration is difficult.

When the expectoration is too great and the

cough too frequent, give acid sulph. aromat. and codeine.

For the painful cough of pleurisy, strap the ribs or give hot applications or an ointment containing menthol should be well rubbed over the seat of pain.

The cough of pneumonia should rarely, if ever, be checked by opium. Nor should opium be used in the cough of hypostatic pneumonia, pulmonary œdema, or capillary bronchitis of the old and debilitated.

The cough of laryngismus stridulus may be relieved by the inhalation of amyl nitrite.

The cough of phthisis should rarely be suppressed, as is so often done, for the cough clears the air passages of the morbid accumulations.

Opium in some form is a usual constituent of cough mixtures, but should not be used unless specially indicated.

In spasmodic cough or nervous cough, a belladonna plaster to the chest or belladonna is of value.

Cod liver oil and creosote are often of service in chronic cough.

CORNS.

If the corns are soft, inflamed and painful, bathe the foot in hot water, dry, and apply:

R. Argent. nitrat.....	grs. xxx
Aquæ destillat.....	5iv

M. Sig. Apply with brush once every three days.

The essential ingredient of all corn cures is salicylic acid, which in strong solution removes excess of epidermis, warts, and corns.

If corn is hard, give:

R. Alcohol.....	3iiiss
Extract. cannab. Indic.....	gr. x
Acid. salicylic.....	grs. xxx
Collodion.....	5iss

M. Sig. Apply with brush twice daily till corn softens, then soak foot in hot water and remove corn.

Well-fitting shoes are necessary to prevent their recurrence.

CRAMPS, MUSCULAR.

During the attack, vigorously rub and knead the affected muscles. Cramps can often be broken by the patient jumping up and putting the muscles on the stretch. Afterwards the muscles should be quieted by a little rubbing and exercise.

If patient is very subject to cramps, search for and treat the cause, e. g., rheumatism, gout, anaemia, diabetes, constipation, dyspepsia. Massage and faradization of the limbs, or small doses of strychnine will sometimes ward off the attacks.

A dose of bromides with alkalies at night, or a mixture containing 5 grs. each of lupulin and camphor will be found to be of service.

The following liniment thoroughly rubbed in, is of service:

R.	Chloral	
	Camph.	
	Ol. Cajuput ,.....	5i
	Lin. saponis.....q. s. ad	5iii
M.	Sig. Use twice a day.	

CRETINISM (See Myxœdema).

CRUPO, SPASMODIC.

Prophylaxis. Remove adenoids and enlarged tonsils, attend to digestion, diet, and general hygiene.

Treatment of laryngeal spasm. Cause vomiting by giving vin ipecac. in doses of thirty minims to one drachm, every five minutes till effective. Or give repeated five grain doses of alum in a little simple syrup.

If constipation is present, empty the bowels by an enema. To prevent attacks give two or three doses of antipyrine, two grs. every four hours for a child of two. On the second night give a dose of antipyrine at bedtime.

The laryngitis may be relieved by inhalation of steam from a croup kettle, the patient being in a tent made by pinning blankets over its crib:

R. Menthol.....	3ii
Tinct. benzoin. co.	3iii
M. Sig.	One teaspoonful in a kettle of boiling water for inhalation every two or three hours.

CUPPING (DRY), DIRECTIONS FOR.

The small cupping glasses are rinsed in alcohol, their edges wiped and the remaining film within the glass is ignited from a flame. The glass is then instantly applied to the affected area. The oxygen in the air of the glass being consumed, a partial vacuum is caused and the skin is forced upwards by atmospheric pressure into the glass. The cups are allowed to remain for a few minutes or until they drop off. The blood being thus forced into one part of the body, relieves congestion underneath, and thus has the temporary effect of venesection.

CYSTITIS, ACUTE.

The patient should be put to bed immediately and the diet reduced to a liquid one. Tea, coffee, spices, and alcohol must be withheld. Milk, barley water, rice water, oatmeal water, custards, eggs, etc., can be taken.

Hot sitz baths two or three times a day are of great benefit.

Elevation of the hips frequently contributes greatly to the comfort of the patient by preventing the urine from coming in contact with the trigone of the bladder and consequently relieves the constant desire to urinate.

If the disease is due to gonorrhea all injections should be stopped.

The cystitis may be of an (1) acid or (2) alkaline type. If the former the following are indications for treatment:

R.	Potass. acetat.....	5i
	Potass. bicarbon.....	5ii
	Potass. citr.....	5ii
	Aquaæ q. s. ad.....	3iii

M. Sig. One teaspoonful in water four times a day.

Or:

R.	Ol. sandalwood.....	5ii
	Div. in caps. No. xx.	

Sig. One every four hours with hot water.

Or:

R.	Morph. sulph.....	grs. iii
	Potass. bicarb.....	3iv
	Tinet. belladonn.....	gtts.xviii
	Extr. buchu fluid.....	5iv
	Extr. tritici fluid q. s. ad.....	3iii

M. Sig One dram in hot water four times a day.

If the cystitis is of the acid type, give:

R.	Acid benzoic.....	5ii
	Acid borici.....	3ii

M. et ft. caps. No. xxiv.

Sig. One every four hours.

Or:

R.	Hexamethylenam. or urotropin....	5ii
	Div. in caps. No. xxiv.	

Div. in caps. No. xxiv.

If severe stranguary is present, hot rectal enemas are soothing, and morphine internally acts almost like a specific. It may be added to any of the above prescriptions or given by rectal suppositories:

R.	Morphin. sulph	gr. iss
	Ol. theobrom.....	q. s.

M. et ft. rect. suppos. No. xii.

Sig. One inserted in rectum for pain.

When the disease begins to subside the bladder may be irrigated with any of the solutions mentioned under **Cystitis, Chronic.**

CYSTITIS, CHRONIC.

The cause should be sought and treated, e. g., gon-

orrhea, stone in bladder, enlarged prostate, stricture, residual urine or gout. It is sometimes remarkable how quickly a chronic cystitis disappears when the cause is removed.

When the urine is very ammoniacal and foul smelling, boric acid administered internally in capsules in doses of 5 to 10 grains 3 times a day in conjunction with lavage of the bladder with a boric acid solution.

The strictest antiseptic precautions should be taken in all manipulations about the bladder.

The bladder may be washed out with a soft sterile rubber catheter once or twice a day with any of the following solutions:

1. Boric acid.....1 dram to 10 ozs.
2. Nitrate of silver.....3 grains to 10 ozs.
3. Argyrol.....5 to 10% sol.
4. Potassium permangan.....3 grs. to 10 ozs.
5. Lysol.....½% sol.
6. Sulphate of zinc.....5 grains to 10 ozs.
7. Sulphate of copper.....5 grains to 10 ozs.
8. Resorcin.....3i to 10 ozs.
9. Protargol.....½%.

All solutions in the bladder should be used warm.

DACRYOCYSTITIS, CATARRHAL (INFLAMMATION OF LACHRYMAL SAC).

First slit open the canaliculus by inserting a small knife after putting the lower lid on the stretch by pulling outwards and downwards. After this is done wash out the lachrymal sac with an antiseptic solution, such as a hot saturated solution of boric acid, and open the lachrymal duct with probes, beginning with a small one and gradually increasing in size.

If a cure does not result after careful treatment, then the lachrymal sac and gland must be extirpated.

The catarrhal inflammation frequently ends in **Dacryocystitis, Phlegmonous**, which see.

This may result in **Lachrymal Duct, Stricture of**, which see.

DACRYOCYSTITIS, PHLEGMONOUS.

Try to cut short the attack by leeches or by applying a lotion:

R.	Extr. opii.....	grs. x
	Plumb. acetat.	grs. xv
	Aq. destillat.....	3iv

M. Sig. Keep the lotion on ice and apply on gauze every half hour.

At the same time give a brisk calomel cathartic followed by 15 gr. doses of phosphate of soda every two hours.

If inflammation does not subside, apply constantly a pad of gauze wet with this lotion:

R.	Extr. opii.....	grs. xv
	Acid. boric.....	grs. lx
	Aq. destillat.....	3iv

M. Sig. Apply the lotion every hour.

The pad should be covered with a piece of rubber protective to prevent evaporation.

When fluctuation is detected or it is evident that pus has formed and is making its way to the surface, make a free and deep incision through the skin and the anterior wall of the lachrymal sac. The incision should be made in the direction in which the skin tends to wrinkle, that is, from above downward and outward, in order that no perceptible scar may be left.

If the suppuration should become chronic, it is necessary to extirpate the entire sac, and at the same time the lachrymal gland.

DANDRUFF (SEBORRHœA).

The scaly condition of the scalp must first be treated by the use of an antiseptic soap, such as that of biniodide of mercury. Use this three or four evenings in succession. Then brush the scalp with:

R.	Hydrarg. bichlor. (1 to 1,000).....	3iv
----	-------------------------------------	-----

Sig. Brush the scalp once a day until irritation is produced.

This treatment should be followed by an ointment composed of sulphur, resorcin and tar:

R.	Sulph. præcip.....	grs. xv
	Resorcin.....	grs. xv
	Olei amygd. amar.....	m. iii
	Paraffin. mollis.....	5i

M. et ft. ungt.

Sig. Rub thoroughly into roots of hair once a day for two weeks, and afterwards occasionally.

If the patient objects to greasy preparations, a hair wash may be substituted, as:

R.	Acet. cantharid.....	3ss
	Hydrarg. bichlor.....	gr. i
	Spts. camphor.....	m. iii
	Aquaæ destillat.....	5i

M. et ft. lotio.

Sig. Use at bedtime.

Washing the hair too often and not drying it properly favors the formation of dandruff. Dyspepsia and constipation aggravate the condition but do not cause it. Give the following if these two disorders are present:

R.	Tinct. nuc. vomic.....	3iv
	Acid. sulph. aromat.....	3iii
	Tinct. cardamom	
	Tinct. quassiae.	
	Tinct. calumbæ.....	aa 5ii
	Elix. gentian. glycerin. N. F. q. s. ad	3iii

M. Sig. One teaspoonful in a wineglass of water before each meal.

For the constipation give:

R.	Extr. cascar. sagrad.....	grs. xxx
	Aloin.....	gr. v
	Podophyllum resin.....	grs. vi
	Extr. colocynth.....	grs. xxiv

M. et ft. caps. No. xxiv.

Sig. One or two at bedtime.

In order to improve the general tone of the skin, give:

R.	Liq. potass. arsenit.....	5i
----	---------------------------	----

Sig. Five drops in water after each meal.

Prophylaxis. In all diseases of the head, brushes, combs and other necessaries should be thoroughly disinfected with boric acid or carbolic acid solution

DAY-BLINDNESS (NYCTALOPIA).

Prophylaxis. If the patient is a soldier, the practice of compelling him to go from crowded and often dark quarters in barracks, to drill for hours in the sun on unshaded parade grounds should be stopped.

Treatment. Confine the patient to a darkened room, treat any pathological condition that is present, and improve his health by a nutritious diet. Change of locality is often of benefit.

DEAF-MUTISM (See Dumbness).

DEATH, CERTIFICATE OF.

The health authorities furnish a "certificate of death" form, and this contains on the reverse side concise information regarding the legal requirements. The physician should carefully read these so as to avoid making any mistakes and so causing trouble to himself and others. Never put down a mere symptom as the cause of death. If the death is due to other than natural causes, e. g., if from criminal violence, from accident, or very suddenly during apparent health, or when unattended by a physician, etc., the case should be referred to the coroner, the county physician, or the justice of the peace, according to the law of the state.

Always make a report of a still-birth to the proper authorities. Concealing the still-birth of a child, which if born alive would be a bastard, is punishable in many states, and if the physician fails to make a proper return to the authorities, he may be charged with being a party to such concealment.

It is always best for the physician never to falsify the certificate of death, especially in the case of infectious disease, no matter what pressure is brought to bear upon him when the relatives of the deceased

wish a large public funeral, or desire to have the body taken within a church. In these cases it is his duty to give a truthful return, not merely from a moral standpoint, but also to prevent the unnecessary spread of a virulent contagious disease. Kissing the dead in these cases should be strictly forbidden.

DEATH, SIGNS OF.

The following are the methods employed to determine whether dissolution has taken place or not. First, examine the pupils (with the electric pocket light if convenient). In case of death the pupils will not respond to light and will remain widely dilated. Second, the application of a red-hot needle to the toe will produce no blister if death has taken place. Third, a dry mirror should be held in front of the mouth and nostrils. If death has occurred the mirror does not become dimmed with moisture. (This test, however, is unreliable and by itself is of little value. If death is recent, the fluids of the still warm body are evaporating through the skin, especially in cases such as cholera, when the temperature may rise after death, and this evaporation may dim the mirror as easily as moisture from the breath.)

Other observations should be made upon the cadaver and regarded as confirmatory or otherwise, of the tests already made. Immediately after death there sets in a period of muscular relaxation which precedes the onset of rigor mortis. Within eight to seventeen hours the body becomes cold to the touch, though this may be delayed by obesity. The globe of the eye loses its normal tension, becoming flaccid and softer because of evaporation. The cornea loses its transparency and is thrown into folds usually in a few hours after death.

DELIRIUM TREMENS.

Patient should be kept in bed and constantly watched. Restraine only if it becomes absolutely

necessary. Cold bath is very beneficial. Withdraw all alcohol. If symptoms of collapse appear, give strychnine and aromatic spirits of ammonia.

R.	Spts. ammon. aromat.....	3iv
	Strych. sulphat.....	gr. $\frac{2}{3}$
	Tinct. capsici.....	5iii
	Essenc. pepsini.....q. s. ad	3iii

M. Sig. One teaspoonful every three hours.

Produce sleep by trional grs. 15; repeat in one hour if necessary. Give morphine ($\frac{1}{4}$ gr.) hypodermically if required. After delirium is over give tonics and nutritious food just as in chronic alcoholism. A pill may be given like this:

R.	Ferri hypophosph.....	gr. ii
	Quin. bisulph.....	gr. i
	Acid. arsenios.....	gr. $\frac{1}{50}$
	Strychnin. sulph.....	gr. $\frac{1}{50}$

M. et ft. pil. No. 1.

Sig. One after each meal.

If the stomach is irritable, give:

R.	Hydrarg. chlor. mit.....	grs. ii
	Cerii oxalat.....	grs. vi
	Sacchar. lact.....	grs. xii

M. et ft. chart. No. xii.

Sig. One every two hours.

When convalescence begins give dose of castor oil.

DEMENTIA PARALYTICA (GENERAL PARALYSIS).

Patients with this disease cannot be properly treated at home, they should be sent to an institution where a hygienic mode of life can be carried out with plenty of fresh air, bathing and massage. Drugs are of no avail in this disease except when due to syphilis, and then iodide of potassium should be given in increasing doses up to 100 or more grains per day.

Continuous rest in bed should be postponed as long as possible, because of the tendency to bed-sores. The excitability should be relieved by bromides (20 grs.), the sleeplessness by veronal (15 grs.), and the

marked delirium by hyoscine hydrobromide ($\frac{1}{10}$ gr.) hypodermically.

The patient should be cautiously watched because of his tendency to suicide and other forms of violence.

DENGUE.

Rest in bed, light diet and avoidance of chills.
Isolate patient.

At onset give mercurial aperient followed by a saline purge. For the fever give a saline diaphoretic mixture with aconite. If severe pain and high fever present, give antipyrin or antifebrin or belladonna and cold applications to the head.

For the pains of convalescence rub with chloroform, belladonna, or camphor liniment, and wrap the painful parts in cotton wool.

Prescription for mercurial aperient:

R.	Hydrarg. chlor. mit.....	grs. xii
	Sacchari lactis.....	grs. xii
	Sodii bicarb.	grs. xxiv
M.	et ft. chart. No. xii.	

Sig. One every hour.

Prescription for the pain and fever:

R.	Tinct. aconiti.	
	Tinct. belladonn	āā gtts. xxiv
	Antipyrini.....	ʒ ii
	Aquæ.....	ʒ ii
	Syr. rub. idæi.....	q. s. ad ʒ iii

M. Sig. One teaspoonful in water every three hours.

Prescription for an anodyne liniment:

R.	Chloralis hydrat.	
	Camphoræ	āā ʒ i
	Tinct. belladonnæ.....	ʒ iii
	Chloroformi.	ʒ ii
	Lin. saponis	q. s. ad ʒ iii

M. Sig. Rub in thoroughly three times a day.

DEPILATORIES.

The only reliable way to remove superfluous hairs

is by electrolysis. This is absolutely effective after two or three sittings.

So-called depilatory powders are useless, for they simply burn off the tops of the hairs leaving the roots intact, and the effect is the same as that of shaving.

A very common depilatory is:

R.	Barii sulphid.....	5iss
	Zinci oxid.....	3vi
	Carmin.....	gr. i
	Sodii sulph.....	3ii
	Cret. preparat.	3vi

M. Sig. Mix a little of the powder with water and spread on skin.

DERMATITIS CALORICA (See Chilblains).

DHOBIE ITCH (WASHERMAN'S ITCH. MANILA ITCH).

Prophylaxis. Short cotton bathing drawers should be worn and changed daily. The skin of the crutch should be frequently powdered with dusting powder containing equal parts of boric acid, zinc oxide and starch.

Treatment. Remove the crusts, scales and discharges by scrubbing with hot water and soft soap on a piece of flannel. Then rub in a 2% chrysarobin ointment twice daily until the skin round the affected parts becomes red and inflamed. Warn the patient that chrysarobin stains the clothing and he must be careful not to let it touch his eyes, since it is a powerful irritant. After the itch seems cured, the part should be painted every second day with 10% solution of tincture of iodine in 60% spirit to prevent any recurrence of the disease.

DIABETES INSIPIDUS.

Look for and treat cause, e. g., nervous, abdominal syphilitic, or constitutional disease or injuries.

Hygienic treatment. Patient should live in well ventilated, warm, dry room. He should wear flannel

next the skin and should take warm baths followed by brisk friction with flannel and should take open air exercise.

The distressing thirst may be relieved by bits of ice or acidulated drinks such as lemonade. Diuretic drinks like beer or cider should be avoided. The patient need not restrict the quantity of water he desires, but should avoid too much sugar.

Drugs are not to be relied on, but the following is often useful:

- | | | |
|----|---|-------|
| R. | Liq. ac. arsenios..... | 3ii |
| | Ferr. et ammon. citrat..... | 3iiss |
| | Aq. cinnamom.....q. s. ad | 3iv |
| M. | Sig. One teaspoonful in a wineglass of water after each meal. | |

Codein acts well in some cases; it should be given in $\frac{1}{4}$ gr. doses after meals.

DIABETES MELLITUS.

Diet is of the utmost importance. The patient should take regular exercise, but avoid fatigue, exposure and excitement. Massage and hot baths are beneficial. Insulin promises much for Diabetic patients. As this treatment is given subcutaneously and the symptoms, reaction and diet must be watched carefully it seems adviseable to use it only in institutions.

Medicinal treatment. Morphine, Arsenic, Codine and Antipyrin are the best drugs, in the order named. Morphine may be given in $\frac{1}{4}$ grain doses, after each meal. Codein may be substituted in some cases. Antipyrin in 10 grain doses, three times a day is worthy of a trial. Arsenic is best given in the form of Fowler's solution, 5 drops in water three times a day gradually increasing

until the physiologic effect is produced, e. g., puffiness of the eyelids in the morning.

Diabetic coma is always fatal, but sodium bicarbonate in large doses, inhalation of oxygen, intravenous or rectal injection of saline solution are of benefit.

For the complications of diabetes such as **Pruritus**, **Gangrene**, etc., see under these headings.

DIABETES MELLITUS, DIET IN.

At first the carbo-hydrates should be lessened until the sugar has disappeared from the urine. Afterwards they may be replaced gradually and with caution, noting the effect on the urine of each addition as a guide.

Foods forbidden. Sugar and starch in any form at first. Rice, tapioca, sago, vermicelli, arrowroot, cornflower, oatmeal, potatoes, peas, beans, parsnips, beets, carrots, onions, pastry, puddings, ale, stout, porter, port, champagne, liqueurs and cider.

Foods allowed but only in great moderation. French beans, asparagus, cauliflower, koumiss, milk, strawberries, gooseberries, raspberries, currants, peaches, nectarines, claret, hock, dry Sauterne, Chablis, Burgundy, brandy, whisky, soda water, Apollinaris, Seltzer, or Vichy.

DIABETES, VON NOORDEN'S DIETETIC TREATMENT OF.

After the carbohydrates in the diet in diabetes have been gradually reduced the following standard diet is given containing 204 grammes of proteid, 135 grammes of fat and no carbohydrates: Breakfast: 5 grammes of tea infused in 200 c.c. of water; ham, 150 grammes; one egg.

Lunch: cold roast beef, 200 grammes; cucumber, 60 grammes, with vinegar (5 grammes), olive oil (10 grammes), salt and pepper to suit the taste;

Apollinaris water, 400 c.c. with 20 c.c. of brandy; and coffee without milk or sugar.

Dinner: clear bouillon, 300 c.c.; beef, 250 grammes; butter, 10 grammes; green salad, 80 grammes; vinegar, 10 grammes; olive oil, 20 grammes; three sardines; Apollinaris, 400 c.c. with 20 c.c. of brandy.

Supper: Two eggs; Seltzer water, 400 c.c.

This diet is continued until there is either an absence of sugar in the urine or until it shows the amount of sugar that is being formed in spite of the absence of carbohydrates from the diet.

This method offers a basis for the special dietetic treatment of the different forms of diabetes whether mild, moderate, or severe.

If a patient shows no sugar in his urine for some days as the result of the carbohydrate-free diet, he is allowed some form of starch in gradually increasing quantities until sugar reappears in the urine. We can thus determine the ability of the economy to metabolize varying amounts of carbohydrates. The starch-tolerance may be expressed in the following formula: starch-tolerance equals standard diet plus x-grains of starch.

Von Noorden claims that a non-carbohydrate diet improves tissue metabolism, thus increasing the power of the system to warehouse carbohydrates, and recommends a rigid nitrogenous diet at intervals of a few months.

Foods allowed:

All clear soups and broths; meats of all kinds, fish, shellfish, beef juice, eggs, cream, butter, cheese, gluten, bran and almond bread and biscuits, greens, turnip tops, tomatoes, lettuce, mushrooms, cucumbers, oranges, lemons, nuts, pickles, olives, vinegar whipped cream and custards. Saccharin should be used as a sweetening agent instead of sugar.

DIARRHŒA.

To effect a prompt cure in mild cases all food should be withheld for twenty-four hours with rest in bed. If the pain is severe give a hypodermic injection of morphine ($\frac{1}{4}$ gr.). If the pain is not severe clean out the alimentary tract first. If only a few movements have taken place, two grains of calomel or an ounce of castor oil may be given. This may be followed by:

R. Bismuth. subnitrat.

Tinct. cardam.

Tinct. catechu.

Tinct. opii.

Mist. cretæ.....āā 3iv

Syr. acac.....q. s. ad. 3iii

M. Sig. One teaspoonful every three hours.

Or:

R. Pulv. opii.....grs. xii

Plumb. acetat.grs. xxiv

Pulv. camphoræ.....grs. xii

M. et ft. caps. No. xii.

Sig. One every three hours.

Relieve thirst with chipped ice.

In severe cases with vomiting and purging, give at first morphine ($\frac{1}{4}$ gr.) hypodermically. If collapse results, give the following:

R. Strych. sulphat.gr. ss

Nitroglycerin.....gr. $\frac{1}{2}$

Spt. vin. gallic.....q. s. ad. 3iii

M. Sig. One teaspoonful hypodermically or by mouth.

For the relief of the tenesmus give:

R. Tinct. opii.....m. xx

Starch water.....3ii

M. Sig. Inject into the rectum.

A large mustard plaster should be placed over the abdomen (one part of mustard to six or eight of flour)

DIARRHŒA, NERVOUS.

Place the patient on liquid diet for several weeks. In severe cases the patient should be placed on a skim-milk diet. Later on it may be followed by a diet consisting of rice, toast, eggs, rare beef, junket, milk and corn starch. He should avoid fats, sweet fruits, pastry and alcohol. Remove the cause, which is usually mental worry. The patient should wear a flannel abdominal band over the stomach.

Relief of the neurasthenic condition is frequently all that is necessary to stop the diarrhœa. Astringents do not do much good and opium should not be used. Nerve sedatives are indicated such as:

R.	Ammon. bromid.....	3 <i>i</i>
	Ammon. valerian.....	5 <i>i</i>
	Asafoetida.....	grs. xxiv
	Extr. sumbul.....	grs. xxxvi
M.	et ft. caps. No. xxiv.	
Sig.	One every four hours.	
Or:		
R.	Zinci valerian.....	grs. xii
	Ferri valerian.....	grs. xlviii
	Quinin. valerian.....	grs. xxiv
M.	et ft. caps. No. xxiv.	
Sig.	One every four hours.	

DIARRHŒA OF CHILDREN (See Gastroenteritis, Acute).

DILATATION OF THE STOMACH (GASTRECTASIS).

The patient should not eat or drink large quantities at a time, but should take small amounts at frequent intervals. Not more than three pints of fluid should be drunk in twenty-four hours. If the thirst is troublesome, water and meat broth should be given by the rectum. Gastric lavage prevents retention and fermentation of the food and also relieves vomiting. The patient should avoid all foods likely to ferment, especially sweets and fats.

The muscular tone of the stomach should be im-

proved by means of strychnine. A carefully fitted abdominal bandage gives mechanical support to the stomach and gives ease to the patient.

Gastric analysis will indicate the kind of drugs to be given. If the hydrochloric acid is diminished, prescribe dilute hydrochloric acid. If hyperacidity is present, neutralize it by:

R. Magnes. carb. 3ii

Bismuth. subcarb.

Sodii bicarb. aa 3i

M. et ft. chart. No. xii.

Sig. One to be taken about an hour after meals.

If fermentation is present, it may be retarded by the following:

R. Resorcinolis..... grs. lxxv

Bismuth. salicylat.

Pulv. rhei.

Sodii sulphat. aa 5iiss

Sacchari lactis..... 5iiss

M. Sig. Half a teaspoonful twice a day.

Abdominal massage is of considerable use to tone the musculature of the stomach. Faradization of the stomach is also of benefit.

In prescribing strychnine as a muscular tonic it should be combined with atropine:

R. Strych. sulphat. gr. 2/3

Atropin sulphat..... gr. 1/4

Ess. pepsini q. s. ad. 5iii

M. Sig. One teaspoonful three times a day in water, before meals.

Gastric lavage should be carried out at least once a day. The patient should be taught to wash out his own stomach. It is of most service if done before the evening meal. A solution containing two teaspoonfuls of bicarbonate of soda to the quart of hot water is of use to dissolve the mucus in lavage of the stomach.

DIPHTHERIA.

The sick-room should be kept cool (65° F.) and freely ventilated. The air of the room should be kept moist by generating steam in a kettle or by slaking large quantities of quicklime in the room. In the early stages and especially when laryngeal symptoms are present, steam inhalations by means of a croup kettle, the spout of which is introduced under a tent of blankets constructed over the child's crib are indicated. The diet should be fluid and very nourishing. If nursing, the child should not be allowed the breast, but should be fed on milk withdrawn by means of the breast pump. Allow the patient to drink plenty of cold water.

Antitoxin should be administered as soon as possible. In mild cases one dose of 2,000 to 3,000 units is often sufficient. Late in the disease when the condition is profoundly toxic 10,000 units may be given and repeated until improvement takes place. All cases with laryngeal involvement require from 6,000 to 8,000 units. The injection may be made with strict antiseptic precautions into the thigh, buttock or side of the chest.

The local treatment is directed towards cleanliness rather than destruction of the bacilli, and if the child struggles violently it is better to desist than exhaust it. Irrigate the nose and pharynx with a warm normal salt solution or a weak boric acid as hot as the patient will bear, by means of a soft catheter attached to a fountain syringe. The child should lie on its side with the head slightly lower than the rest of the body, so that the fluid can easily flow from the mouth into a convenient receptacle.

The patient should be held by the nurse and the mouth held open by a cork between the teeth or by a mouth gag, while the following application is made to the throat by means of a cotton swab or brush: (Loeffler's solution.)

R.	Mentholis.....	3iiss
	Toluolis.....	3x
	Liquoris ferri chloridi.....	3i
	Alcoholis absoluti.....	3ii

M. Sig. Apply three times a day.

A solution of hydrogen peroxide, 1 part to 3 of lime-water may also be used for the same purpose.

As soon as a tendency to heart weakness is noticed stimulants should be given. Half a drachm of brandy or whisky, diluted with water is a proper amount for a child of five years. Strychnine is also valuable in doses of 1/120 gr. every three hours. If there is low arterial tension combined with heart weakness digitalis may be given in small doses. Impending cardiac paralysis may be combated by hypodermic injections of morphine. In profound adynamia hypodermic injections of camphor dissolved in ether or sterile oil may be given.

For the painful enlarged glands of the neck and for the earache, apply hot camphorated oil three times a day followed by a hot poultice.

When convalescence begins the local treatment should be gradually dropped and more attention should be paid to toning up the general system with iron, cod liver oil, etc. For a child six to ten years old, give:

R.	Syr. ferri iodid.....	3iii
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Sig. Ten drops in water through a glass tube, three times a day.

If antitoxin is given early we will seldom be called upon to do intubation or tracheotomy. These measures should be employed as soon as the indications appear rather than wait till the patient is in extremis. Intubation is better than tracheotomy. When the tube is in the larynx, feed the child with the head hanging low.

Paralysis may intervene in diphtheria as early as the sixth day, and as late as six weeks. The muscles of the pharynx are the first to be affected and frequently

the only ones. The paralysis is temporary. Strychnine in large doses should be given, $\frac{1}{60}$ gr. of the sulphate three times a day to a child six years old.

DIPHTHERIA, PROPHYLAXIS OF.

One nurse should take entire charge of the patient and should hold no communication with the rest of the family. Discharges from the nose and mouth should be received on cloths which should be immediately steeped in carbolic acid solution (six ounces of acid to two gallons of water). All linen, etc., which has come in contact with the patient should be immersed in this solution for two hours and then boiled in water for one hour. In making applications to the throat a pane of glass should be held between patient and nurse to prevent discharges being coughed into the face of the attendant. The hands of the attendant, surfaces soiled by discharges and utensils used by the patient should be washed in the carbolic solution. The sick-room should have all hangings and unnecessary furniture removed from it, and should be thoroughly aired two or three times a day. It should be frequently swept after scattering wet tea leaves on the floor to prevent the dust from rising.

The nurse and all members of the family who have been exposed to the infection should receive an immunizing dose of antitoxin (100 units for a child of one month to 800 units for an adult) and at the first sign of a sore throat a full dose should be given.

After the patient is removed disinfect and thoroughly air the sick room and all its furniture.

DIPSOMANIA (See Alcoholism, Chronic).

DISINFECTION, DIRECTIONS FOR.

A disinfectant for common use should be simple, cheap and reliable, e. g., 1st. Four per cent solution of chloride of lime. Dissolve six ounces of the best chloride of lime in one gallon of water. Discharges

from the bowels of a patient suffering from a contagious or infectious disease, should be received in a vessel containing this solution, and allowed to stand for an hour or more before being thrown into the water closet. Discharges from the throat or lungs should be received in a vessel containing this solution. Chloride of lime in powder should be used in privy vaults, cesspools, drains, sinks, etc. Instead of this solution a 5% solution (six and a half ounces to the gallon) of carbolic acid may be used.

2nd. Bichloride of mercury, 1 to 1,000. Dissolve one drachm each of corrosive sublimate and muriate of ammonia in one gallon of water. Dissolve in a wooden barrel or earthen crock. In disinfecting soiled underclothing, bed linen, etc., immerse the articles for four hours and then wring them out and boil them. This solution is excellent for wetting floors before sweeping. Mixed with an equal quantity of water, it is used for washing the hands, etc., of attendants on the sick.

3rd. Milk of lime (quickslime). This should always be freshly prepared. Slack a quart of freshly burnt lime in small pieces with three-fourths of a quart of water. A dry powder of slack lime results. Make milk of lime not long before it is to be used, by mixing one part of this dry powder with eight parts of water. This disinfectant can be used to whitewash exposed surfaces, to disinfect excreta in the sick room, or on the surface of the ground in sinks, drains, etc.

DISLOCATIONS.

Recent dislocations should be reduced or the parts restored to their normal condition at the earliest possible moment. Too much inflammation or swelling or too great a shock may justify delay for a few hours or even days.

The after treatment consists in keeping the joint at rest for from 10 days to two or three weeks. Then

passive movements should be made for several days, to remove stiffness.

The following prescription for a liniment may be given:

R.	Chloroform.....	5iii
	Camphor.....	5ii
	Ol. terebinth.....	5i
	Ether.....	5iii
	Lin. saponis.....	q. s. ad. 5iv
M.	Sig. Use twice a day.	

DIVER'S PARALYSIS (See Caisson Disease).

DRINKS FOR THE SICK.

Albumin water. Beat up the white of an egg until it becomes slightly foamy. Squeeze in the juice of half a lemon. Sugar to taste, and add a few pieces of chipped ice and fill the glass with water. If lemon juice is disagreeable to the patient, substitute half a dram of vanilla or syrup of raspberry.

Egg-nog. Take one egg and beat it up, then add two teaspoonfuls of sugar, a glassful of milk, and lastly one tablespoonful of brandy. Add to this mixture a little ground cinnamon or nutmeg.

Orangeade. Pour a cupful of boiling water over the rind of one orange, and add the juice of the orange with a tablespoonful of sugar. Strain after cooling and serve with shaved ice.

Egg broth. Beat up an egg and add to it half a teaspoonful of sugar and a pinch of salt; pour a glass of hot milk over it and serve at once. Hot water, broth, soup, or tea may be used in place of milk.

Flour ball. Place a half a pint of flour in a small cheese cloth and boil for at least four hours. After removing, peel off the outside and grate the hard ball, dry in the oven and keep in a covered jar.

Kumiss. Into strong bottles pour one quart of fresh milk, half an ounce of sugar, a piece of fresh yeast cake half an inch square, and keep at ordinary

room temperature for one week (60° to 70° F.) Shake them five or six times a day, then put on ice.

Peptonized milk. To a pint of milk add four ounces of water, and the contents of one of Fairchild's peptonizing tubes, or five grains of extract of pancreas and fifteen grains of bicarbonate of soda. This mixture should be placed in a clean graniteware saucepan and gradually heated until it boils, stirring continuously. Allow the mixture to boil for ten minutes, strain into a sterile bottle, cork and keep in a cool place. Shake the bottle well before using. It may be served hot or cold. If the above directions are followed it will not become bitter.

Flaxseed tea. Flaxseed, half a teacupful, water, one quart. Boil half an hour, sweeten with sugar or honey to suit the taste, add the juice of four lemons and some lemon peel, cool and strain.

Imperial drink. Cream of tartar, one drachm, boiling water, one pint; sugar and lemon peel to suit taste. Mix, cool and strain.

Jelly water. Add currant or other acid jelly to hot water, cool and strain.

Oatmeal water. Half a teacupful of oatmeal in a quart of cold water. Let it stand two hours in a cool place, then pour off as required.

Toast water. Toast thoroughly without burning, a thin slice of bread. Pour over it six ounces of boiling water. Let it stand for an hour or two in a covered dish. Administer it by the teaspoonful.

Rice water. Steep an ounce of rice for three hours in a quart of cold water. Let it simmer slowly and gradually raise to the boiling point. Add lemon peel to suit taste. Cool and strain. This is a very useful drink in diarrhea, dysentery, and other intestinal troubles.

Lemonade. Cut the rind of a lemon into thin slices. Put the peel and one sliced lemon into a pitcher with one ounce of sugar. Pour on one pint

of boiling water; cover, let stand and strain before using. Hot lemonade is often used in colds, and cold lemonade in fevers.

Wine whey. Heat half a pint of milk to boiling point. Add two ounces of sherry wine. Mix and strain. Used in colds and fevers. A tablespoonful may be given to a child when food and stimulant are necessary.

DROPSY (See Ascites).

DULLNESS OF HEARING.

When a patient, through pathological changes in his organ of hearing, is unable to understand words spoken in an ordinary tone of voice, the physician should resort to some mechanical device to aid his patient's hearing, after all medical and surgical methods of treatment have failed. All or many of the numerous contrivances sold should be tried, and the patient should not be contented until the one is found which is most beneficial. Improvement of hearing from these devices is to be expected when the function of the auditory nerve has not been entirely destroyed. When acute inflammation exists in the ear these contrivances should never be used. In chronic ear affections they should be used at a sufficiently early stage to furnish the necessary stimulus to the nerve which is tending towards atrophy owing to the absence of its normal vibration.

When the dullness of hearing is due to tobacco ("tobacco deafness"), sharpness of hearing usually returns when the tobacco habit (smoking or chewing) is given up.

When the deafness is due to relaxation of the tympanic membrane, contractile collodion should be applied to that membrane.

If the deafness is due to throat trouble, inflation with the Politzer bag or Eustachian catheter is often of service.

Tinct. gelsemium in 15-drop doses twice or thrice daily is of use in nervous deafness.

When the deafness is due to too much wax in the external canal, remove it, and when due to deficient secretion of wax, put a few drops of the following into the meatus:

R. Ol. terebinth.....gdds. xl
Glycerini..... 3ss
M. Sig. Instil a few drops in the ear at bedtime.

DUMBNESS (DEAF-MUTISM).

When the dumbness is due to deafness, complete or partial, the power of speech may be developed by teaching the patient to imitate the process of speaking in others, and by a methodical training in lip-language. Sign language, either by hand or gesture should not be cultivated at the same time. Dumbness due to fright may be cured by faradization of the muscles of the neck, combined with hygienic treatment.

When due to feeble-mindedness, the treatment requires great tact and patience. The patient should be taught monosyllabic sounds by being shown the object represented by the sound, while the patient imitates the sound when watching the teacher's lips.

If a child already possesses speech which was acquired before hearing was lost, great efforts should be made to retain his speech and to cultivate the habit of reading the speech of others.

The relations between the nerve centers for speech and hearing are most intimate. The ear plays a constant part in the tuition of the vocal organs in either speech or song. So-called "dumbness" is the result usually, not of defects in the vocal organs, but of lack of hearing, and hence of inability to control by the ear, the pitch or quality of the vocal notes

DYSENTERY, AMOEBOIC.

Prophylaxis. The water supply should be from a pure source and should be safely stored and filtered.

Protect cisterns and tanks from contamination. The soil should be thoroughly drained. A good water carriage system should be substituted for privies and cesspools. All vegetables to be eaten raw should be thoroughly washed and scalded. All water used for domestic or drinking purposes should be boiled. Prevent the pollution of soil and water. Thoroughly disinfect and dispose of dysenteric stools at a distance from the dwelling.

Treatment. During the acute symptoms the patient should rest in bed and restrict his diet to milk, chicken-broth, barley water, egg-albumin, beef-juice, etc.

Poultices, turpentine stupes, or morphine hypodermically will relieve the severe abdominal pains. Small enemas of starch and opium will relieve tenesmus.

Ipecacuanha internally is not of much service in this form of dysentery.

Amœbacidal drugs should be injected high up into the bowel. One and a half pints of warm quinine solution (1 to 1,000) should be introduced slowly by gravitation well up the bowel through a soft rubber tube. Other amœbacides may be tried, e. g., two pints twice a day of peroxide of hydrogen diluted with eight times its bulk of water, or permanganate of potassium (seven grains to a pint), etc.

Internally, sulphate of sodium in drachm doses every three or four hours, or castor oil once or twice a day should be given along with salol in 15 gr. doses three times a day.

DYSENTERY, BACILLARY.

Prophylaxis. The soil near the dwelling should be free from faecal pollution. The water-supply should be pure. All water should be boiled before use and surface water avoided for drinking. All raw vegetables, salads and fruit should be avoided or at any rate scalded before use. Abuse of alcohol, wet, cold,

and exposure to the tropical sun should be avoided. An abdominal belt (cummerbund) should always be worn in the tropics. Dysenteric stools should be disinfected and buried deeply in the earth at a distance from the dwelling. Bedpans, enema syringes, bedding of the sick room should be thoroughly disinfected.

Treatment. Rest in bed in a room which is well-aired and free from draughts. A large linseed poultice should cover the whole abdomen. A sinapism should be applied over the epigastrium, or spongio-piline placed in hot water, and sprinkled with turpentine.

Careful diet, mostly milk, either pure or peptonized, or diluted with lime-water. If there is great prostration give wine, brandy, ammonia or other cardiac tonics.

The ipecacuanha treatment is of great value in this form of dysentery. First give a preliminary dose of an unirritating purgative such as Epsom salts, calomel or castor oil. Next give opium (20 to 30 drops of laudanum) or morphine hypodermically to check peristalsis and relieve tenesmus as well as to prevent emesis by ipecacuanha, the next drug given. A single large dose of 20 to 40 grains of powdered ipecacuanha is given, stirred up in water. This dose is repeated every 6, 8, or 12 hours, according to the urgency of the symptoms, until the appearance, usually within 24 hours, of a copious black stool. Hypodermic injections of anti-dysenteric serum should be given within the first two or three days of the disease.

DYSENTERY, CHRONIC.

Successful treatment is best accomplished by regulation of the diet and irrigation with antiseptic solutions. The diet should be fluid in character: milk, meat, broths, milk-toast, thoroughly boiled rice, beef juice, junket, albumen, etc. The patient should

be confined to bed and not allowed to exert himself or to return to solid food too soon.

Irrigation gives by far the best results. It should be done twice a day through a long rectal tube, using one to three quarts of water (100° F.) at a time. In mild cases a physiologic salt solution should be used. Antiseptic drugs may be added to the water as follows: Quinine (1 to 2,500), mercuric chloride (1 to 5,000), carbolic acid (1 to 2,000), salicylic or boric acid (1 to 2,000).

Silver nitrate is also of much benefit, using 2 or 3 pints of warm water containing 20 to 30 grs. to the pint. The patient should be given $\frac{1}{4}$ gr. of morphine and placed on his back or on the left side with the hips well elevated. The water reservoir should not be more than two feet above the rectum and the water should flow in very gently.

DYSMENORRHEA.

Patient should avoid narcotics and alcohol, except in cases of special urgency. She should rest in the recumbent posture three days before the flow begins and during its continuance. If there is undue pelvic congestion a hot-water bag, or a flannel wrung out of hot water should be applied over the lumbar region for 15 minutes four or five times daily. Rectal suppositories containing five grs. of iodoform and $\frac{1}{6}$ gr. extract of belladonna often give great relief. During the inter-menstrual period faradization of the pelvis three times a week is of great service. When dysmenorrhea occurs in young stout girls, it is wonderfully relieved by viburnum given frequently just before menstruation, and three times a day during the interval:

R.	Extr. viburn. prunifol. fluid.....	3 <i>i</i>
	Tinct. belladonn.....	gtts. xxiv
	Tinct. hyoscyam.....	3 <i>ii</i>
	Syr. cinnamon.....	q. s. ad. 3 <i>iii</i>
M.	Sig. One teaspoonful in hot water for two days	

previous to menstruation and until it is well established.

During the interval take one teaspoonful three times a day.

Morphine should never be given unless absolutely necessary. Control the pain with the following:

R. Antipyrin.....	3i
Sodii salicyl.	3i
Tinct. opii co.....	3ii
Syr. aurant. cort.....q. s. ad.	3ii

M. Sig. One teaspoonful every two hours until relieved.

Many cases of dysmenorrhea will resist all medical treatment; in these it becomes necessary to dilate and curette the uterus.

DYSPEPSIA, FLATULENT.

See that the teeth of the patient are sound and all in regular use, that none are tender to the touch. Unused teeth usually get discolored. The patient should thoroughly masticate his food and take little or no fluid at meals. Meals should be at regular hours with pleasant company and no haste. The cooking should be good and a short rest should be taken before and after each meal. Fresh air, exercise, Turkish baths, friction of the skin are of benefit; attention should be paid to the movements of the bowels.

Forbid the following articles of diet. New bread, pastry, sweets, sauces, curries, pickles, all fried or re-cooked meats, all salted, preserved and highly seasoned fish and meats, sausages, liver, kidneys, duck, goose, eels, green vegetables generally, acid or unripe fruits, sour wines, coffee, chocolate, lemonade.

Allow the following: Clear soup in very small quantity if at all, beef juice, boiled fish, chicken, lamb, mutton, roast beef, boiled (never fried) ham, eggs poached or soft boiled, tripe, cow heel, calf's head, dry toast, stale bread, green vegetables in very small quantities, milk, peptonized or diluted with Vichy or Seltzer, weak tea freshly made.

The following alkaline mixture is very useful in this class of cases:

R.	Potass. bicarb.	ʒ iii
	Sodii bicarb.	ʒ iii
	Spt. ammon. aromat.	ʒ iv
	Tinct. rhei.	ʒ ii
	Infus. calumb.	q. s. ad. ʒ vi

M. Sig. One tablespoonful in water three times daily, a quarter of an hour before meals.

Or alkaline cachets may be given each containing:

R.	Potass. bicarb.	grs. xv
	Sodii bicarb.	grs. xv
	Pulv. rhei.	grs. ii

M. ft. pulv.-cachet; mitte tales No. xxxvi.

Sig. One three times daily, a quarter of an hour before food.

The following menthol mixture for flatulence is of service:

R.	Menthol.	grs. iv
	Spt. ammon. aromat.	
	Spt. chloroform.	āā ʒ i

M. Sig. One teaspoonful in water when required.

EARACHE (OTALGIA, OTITIS).

Examine carefully the ear, mouth, teeth, throat and nose for the cause and treat it. Wash mouth and gargle throat frequently with hot water.

Local treatment. Allow a hot saline solution (100° to 105° F.) to run into the ear from a fountain syringe. One to four leeches may be applied upon the tragus or behind the ear. Instil a solution of atropin sulphate (two grs. to the ounce) or of cocaine hydrochlor. (4% solution) well down into the external meatus. The "heart" of a hot onion applied to the canal often quiets the pain. The following is a good "earache drop:"

R.	Cocain. muriat.	gr. v
	Tinct. opii.	ʒ ii
	Glycerini.	ʒ ii

M. Sig. Three drops of this mixture on absorbent cotton to be placed in the ear twice a day.

Hot fomentations (poppy heads or chamomile) are often useful. Blisters behind the ear often give relief.

Internally. The drugs used are: aconite, belladonna, Dover powder, aspirin, and calomel.

R.	Tinct. aconit.....	gtt. xvi
	Liq. ammon. acetat.....	5ii
	Syrup. simplic	5ii
	Aquæ..... q. s. ad	5ii

M. Sig. One teaspoonful every four hours during acute inflammation, for a child of three years.

For neuralgic headache give:

R.	Acetphenetidini.....	5i
	Ft. chart. No. xii.	

Sig. One powder every hour till the severe pain ceases.

ECHINOCOCCUS DISEASE. (See Hydatid Disease.)

ECHTHYMA.

Good food and tonics such as iron, quinine, strychnine and cod-liver oil are of the greatest service.

The crusts should be softened by sweet oil, boric acid poultices or ointment, and removed. The following stimulating ointment may then be applied

R.	Ungt. hydrarg. ammoniat.....	5vi
	Ungt. zinci oxidii.....	5iv
	Acidi salicylici.....	gr. x
	Petrolati..... q. s. ad	5ii

M. Sig. Keep applied to the pustule constantly.

For an anæmic strumous child prescribe:

R.	Syrupi ferr. iodid.....	5i
	Olei morrhuae.....	5ii
	Acaciæ.....	3iv
	Aquæ..... q. s. ad	5vi

M. Sig. One teaspoonful two hours after each meal.

ECLAMPSIA GRAVIDARUM.

Preventive treatment. More important than the curative. If a pregnant woman exhibits symptoms like albuminuria, oedema, alimentary disturbances, headache, lassitude, deficiency of urine or of total solids, a rapid and highly tense pulse, the indications are to diminish the amount of nitrogenous food to a minimum, to hinder the production of poisonous materials in the intestines and tissues, to eliminate these poisons by the action of the bowels, kidneys, liver, skin and lungs.

Diminish the amount of nitrogenous food by restricting the patient to an absolute milk diet (with Vichy and other table waters). Two or three liters of milk daily should be sipped slowly.

Eliminate the poisons from the body-tissues by pure air, inhalation of oxygen, gentle exercise, massage, etc.

To eliminate the poisons by the bowels give daily doses of colocynth and aloës followed by a saline next morning:

R.	Ext. colocynth.....	grs. xxiv
	Aloës	grs. v
	Extr. belladonnæ.....	grs. iii
	Podophyllin. resin.....	grs. vi

M. et ft. caps. No. xxiv.

Sig. One or two at bedtime.

When the heart is sluggish and is accompanied by albuminuria give:

R. Infus. digitalis fol. (freshly made).... ʒ vi

Sig. One tablespoonful every four hours.

If it is necessary to use the skin as an eliminant, give hypodermically: $\frac{1}{10}$ gr. of pilocarpin muriate.

Treatment of the convulsions. If the convulsions come on before labor, the uterus should be emptied as quickly as possible. Rupture the amniotic sac and dilate the uterus either with Barnes' bags, the finger or Bossi's dilator.

To stop the convulsions use chloroform or better still $\frac{1}{4}$ gr. morphine hypodermically. The morphine does the work.

If the arterial tension is high, perform venesection and remove about sixteen ounces of blood. Replace the blood by an injection of a physiologic salt solution. Veratrum viride should be given in 30 drop doses every hour until the pulse becomes soft.

Make the patient sweat by giving $\frac{1}{6}$ gr. of pilocarpin hypodermically.

High rectal injections of saline solution should be given and a drop or two of croton oil should be placed on the back of the tongue to produce free purgation.

After treatment. Usually the patient regains her former strength in a very short time. The albuminuria should be treated by:

R. Potass. citrat..... 5iii

Infus. digitalis fol. (freshly made).... 5iv

Sig. One dessertspoonful every four hours.

Or:

R. Tinct. digital..... 5iv

Tinct. strophanth..... 3i

Potass. acetat..... 5ii

Ess. pepsin..... q. s. ad 5iii

M. Sig. One teaspoonful in water every four hours.

ECTROPION. (Eversion of margin of eyelid.)

The acute form may be cured by the application of astringents, scarification of the swollen tissue, or excision of a portion of the thickened membrane.

In the chronic form treat the cause: exophthalmos, paralysis of the seventh nerve, or cicatricial contraction of the skin following burns, injuries, or necrosis of bone. In most cases it is necessary to excise a portion of the ciliary border of the eyelid.

ECZEMA.

The inflamed part should be placed at rest and all sources of irritation (washing with soap, or hard

water, scratching, exposure, etc.) should be avoided. If the eczema is acute and widespread put the patient to bed where the rest and equable temperature is of value. The affected part should not be washed in hard water or with soap, but rain water or distilled water may be used. Or prohibit washing altogether and dab the parts with a solution of hamamelis.

Prevent venous engorgement by attending to the position of the affected part. Diet should be light and non-irritating; alcohol should be avoided. The bowels should be attended to with sulphate of magnesia, and in gouty cases and dyspeptics give:

R.	Potass. bicarb.....	3iii
	Sodii bicarb.....	5iii
	Sp. ammon. aromat.....	3iv
	Tinct. rhei.....	3ii
	Inf. calumbæ.....q. s. ad	3vi

M. Sig. A tablespoonful in water three times daily, a quarter of an hour before food.

In the chronic forms of eczema, general and nervine tonics (cod-liver oil, arsenic, nux vomica, etc.) are of service.

If crusts or scabs are present, they must be removed by soaking in oil, boracic-starch poultices, the continuous water bath, etc.

Local treatment. Sedative applications are especially useful in acute eczema, while astringent and stimulating applications are best in the subacute and chronic forms of the disease; but in many cases a combination of astringents with other applications such as tar preparations, is useful.

Thus in acute cases tinct. of hamamelis, the ordinary lead lotion, and weak alkaline lotions such as biborate of soda and bicarbonate of soda (20 grs. to the ounce) are of great value.

For moist eczema it is best to use lotions and for dry

eczema to use ointments. The following ointment is very satisfactory:

R.	Acidi borici.....	5ii
	Zinci oxidi.....	5ii
	Acidi salicylici.....	3ss
	Lanolini.....	3i
	Vaselini.....ad	3iii

M. Sig. To be applied twice a day.

In the chronic and dry forms of the disease, weak tar preparations; and for the pustular forms of eczema and eczema of the scalp, mercurial preparations are very valuable:

R.	Acidi salicylici.....	5i
	Ungt. picis liquidæ	3i
	Petrolati.....q. s. ad	3iv

M. Sig. Apply freely, and with forceps carefully remove all softened crusts once daily.

Or:

R.	Hydrargyri ammoniat.....	grs. xx
	Ungt. zinci oxidi.....	3i

M. Sig. Use once a day.

EGYPTIAN CHLOROSIS. (See Ankylostomiasis.)

ELECTRIC SHOCK.

In accidents where there is only momentary contact with currents of high pressure, perform artificial respiration. Also apply it if heart happens not to be in the direct conducting path of the current. But if the heart has ceased to beat, artificial respiration is of no value. See also Lightning Shock.

ELEPHANTIASIS GRAECORUM. (See Leprosy.)

ELEPHANTOID DISEASES. (CHYLURIA, VARICOSE-GROIN-GLANDS, LYMPH SCROTUM, CHYLOCELE, LYMPHORRHAGIA, ORCHITIS, ENDEMIC LYMPHANGITIS and ELEPHANTIASIS ARABUM. (See Filariasis.)

EMISSIONS. (See Seminal Emissions.)

EMPHYSEMA OF THE LUNGS.

Prophyaxis. Avoid the causes of bronchitis so as to prevent frequent recurrences of this condition which is the chief cause of emphysema. Plenty of fresh air, proper exercise and diet as well as residence in a temperate and equable climate are to be recommended. Playing on wind instruments and occupations where impure air is breathed are harmful. Over-eating and abdominal distention must be carefully guarded against.

Treatment. When symptoms of cardiac failure are present strychnine ($\frac{1}{30}$ to $\frac{1}{10}$ gr.) may be given combined with digitalis:

R.	Strychnin. sulphat.....	gr. ss
	Pulv. digital.	
	Pulv. scillae.	
	Ferri reducti.....	ââ gr. xx
M.	ft. pil. No. xx.	
Sig.	One three times a day.	

The inspiration of compressed air, followed by expiration into rarified air is often of considerable value, the compressed air thoroughly aerating the blood and the rarified air withdrawing the residual air from the lungs.

When marked cyanosis and dyspnœa are present bleeding and the withdrawal of ten to twenty ounces of blood may be necessary. See Bleeding, Practical Directions for.

Dyspnœa may sometimes be relieved by drugs such as apomorphine hydrochloride (gr. $\frac{1}{2}$) which increases the secretion of bronchial mucus.

The following mixture which combines an expectorant, two antispasmodics and potassium iodide will be found useful in many cases of emphysema:

R.	Potass. iodid.....	3ii
	Tinet. belladonn.....	3iii
	Spt. æther. co.....	3i
	Syrup. pruni Virginian.....	3i
	Aq. destillat.....q. s. ad	3iv

M. Sig. One teaspoonful every four hours.

For the relief of pain mild poultices of mustard or linseed, or a liniment consisting of equal parts of menthol, hydrated chloral and camphor well rubbed together will be found useful.

R. Menthol.

Chloral hydrat.

Camphoræ.

Ol. cajuput.....āā 3i

Lin. saponis.....q. s. ad 3iv

M. Sig. Use twice a day.

EMPYEMA.

This is a surgical disease. Time should not be lost in trying measures to absorb pus. The diagnosis is made positive by aspiration. The pus should be evacuated in the mid-axillary line at the lowest possible point which is usually the seventh rib. Resect two inches of one rib in the following manner: Cut through the skin and superficial fascia until a rib is exposed. Incise the periosteum longitudinally, take a blunt dissector and loosen the bone from the periosteum all the way around. With a bone forceps cut out two inches of the rib. Incise through the periosteum with a sharp knife, allow the pus to escape and insert a double drainage tube pinned to the skin with a safety pin. Do not wash out the cavity. Change the outer dressings daily. In a few days the temperature comes down, the patient's appetite returns, and he begins to pick up strength. Tonics should now be given as:

R. Elix. ferri quin. et strychn..... 3iv

Sig. One teaspoonful in water four times a day.

The patient should be put on forced feeding. Give plenty of eggs, milk, broth, egg-nogs, etc.

Occasionally the pus works its way into the lungs and ruptures into a bronchus, and is expectorated. In these cases it is not necessary to do a resection of the ribs.

ENDOCARDITIS, ACUTE.

Prophylaxis. Patient should avoid exposure and wear proper clothing, for rheumatism is the most frequent cause.

Treatment. Absolute rest in bed, prolonged if necessary, for several months, in order to give the inflamed organ as much rest as possible. If the action of the heart is too rapid apply a Leiter coil or ice-bag on the chest, over the heart. When there are signs of heart-weakness give strychnine in doses of $\frac{1}{60}$ to $\frac{1}{20}$ gr. three times a day. Combat heart failure with alcohol, ammonia and caffeine. Prolonged use of potassium iodide in doses of 10 grs. three times a day is of benefit as a resolvent of the connective tissue changes in the valves.

The diet should be nourishing and frequent, small meals are preferable to a few hearty ones. The dietary should be such as not to cause tympanitic distention of the stomach and intestines, for this would cause an interference with the action of the heart.

When the endocarditis is secondary to acute rheumatism, give the salicylates to the fullest extent:

R.	Sodii salicylat.....	5iv
	Vini colchic semin.....	3iv
	Aq. menth. pip.....	3i
	Ess. pepsin.....q. s. ad	3iii

M. Sig. One teaspoonful every three hours in hot water.

If associated with chorea, give arsenic in the form of Fowler's solution in gradually increasing doses. See Chorea.

If the chorea and endocarditis are due to rheumatism give the salicylates instead of the arsenic.

ENDOCARDITIS, CHRONIC. (CHRONIC VALVULAR DISEASE OF THE HEART.)

This includes the treatment for the following conditions: 1. Aortic incompetency. 2. Aortic sten-

osis. 3. Mitral incompetency. 4. Mitral stenosis
5. Tricuspid valve disease. 6. Pulmonary valve disease.
7. Combined valvular lesions. 8. Hypertrophy and dilatation.

The treatment is best considered under: 1. The stage of compensation. 2. The stage of broken compensation. 3. The treatment of special symptoms.

Stage of compensation. The patient during this stage does not require any treatment specially directed towards the heart. It is best not to inform the patient that he has "heart disease," because it may alarm him and make him much worse, especially if he is already very nervous. If the patient is performing hard manual labor, or is leading a "strenuous life," he should be warned not to overwork, worry or indulge in excesses.

The diet may not need any restriction, but overeating or attacks of flatulence are dangerous. The following should be avoided: alcohol, tobacco, hot baths, excessive venery, especially in aortic insufficiency, and suddenly changing to altitudes above 2,000 feet.

Any exertion or excitement that causes palpitation, dyspnoea, or precordial pain must be avoided.

Stage of broken compensation. Loss of compensation may be sudden or more usually gradual. Sudden loss of compensation is usually immediately fatal from acute dilatation. Gradual loss of compensation is usually indicated by attacks of nocturnal dyspnoea, cyanosis, dropsy, angina, anaemia, palpitation, arrhythmia or tachycardia.

Treatment should be started with rest in bed, both mental and physical, for at least ten or twelve days. A saline purgative such as Epsom or Rochelle salts in half ounce doses in half a glass of water, should be given. Or give:

R. Pulv. jalap co..... 3ii
Sig. Half a teaspoonful in water twice a day.

The embarrassed circulation in cases of dilatation with cyanosis is best relieved by withdrawing from 20 to 30 ounces of blood.

Cardiac tonics such as digitalis, strophanthus, strychnine, and occasionally alcohol should be given. Digitalis should be given in every case of failing compensation in large doses. Begin with the tincture in the dose of 15 to 20 drops, four times a day, and continue its use for about three or four days or until it produces a tendency to nausea or vomiting, or until it slows the pulse to 65 or 70.

In cardiac dropsy digitalis is the best drug. The infusion should be given in tablespoonful doses three or four times a day.

Strophanthus in doses of from five to eight minims of the tincture acts the same as digitalis. It may steady an intermittent heart better than digitalis.

Iron and strychnine are also indicated in valvular lesions, the former for anemia, the latter for toning the heart muscle. For the anemia give:

R. Basham's mixture..... ʒ viii

Sig. One tablespoonful three times a day.

Strychnine may be given in $\frac{1}{50}$ gr. doses at any time.

Caffeine citrate in doses of three grains is indicated when diuresis is desired.

Treatment of special symptoms.

Dyspnœa is treated by cupping the chest and increasing the digitalis. Nocturnal dyspnœa is best relieved by $\frac{1}{8}$ gr. doses of morphine, which is an excellent cardiac tonic. If the dyspnœa is due to hydrothorax, remove the fluid by tapping.

Dropsy is usually relieved by digitalis and hydragogue purgatives. The quantity of fluid taken into the body should be restricted. Do not puncture the oedematous limbs, because erysipelas frequently follows. If, however, it is done the strictest antiseptic precautions should be taken.

Palpitation and cardiac distress are best relieved by

potassium iodide in ten grain doses three times a day and nitroglycerin ($\frac{1}{100}$ gr.) three times a day. If the arterial tension is high especially in cases of aortic insufficiency, give tincture of aconite in two to three minim doses every three hours. An ice-bag should be placed over the precordium. If the palpitation is due to flatulence give the following:

R.	Spts. ammon. aromat.....	5iv
	Tinct. nuc. vomic.....	5ii
	Sod. bicarb.....	3i
	Potass. bicarb.....	3i
	Aq. menth. pip..... q. s. ad	3iii

M. Sig. One teaspoonful three or four times a day if necessary.

Insomnia may be relieved with trional in 15 gr. doses at bedtime or may be combined with half a grain of codeine, as:

R.	Trional.....	grs. xlvi
	Codein. sulphat.....	gr. iss

M. et ft. chart. No. iii.

Sig. One at bedtime with water.

If the ordinary remedies for insomnia fail, give morphine sulphate ($\frac{1}{4}$ gr.) with atropine sulphate ($\frac{1}{100}$ gr.) at bedtime.

Cough and haemoptysis. Cough is almost always present in cardiac insufficiency due to engorgement of the pulmonary vessels. Treat the heart rather than give remedies specially directed against the cough. Haemoptysis requires no special treatment; it usually makes the patient feel easier.

Diminished urine. Sometimes the amount of urine falls to 5 or 6 ounces a day. Calomel in 3 grain doses every six hours for three days acts well in many cases. Digitalis and strophanthus usually increase the flow, but it may be necessary to use diuretin in 15 gr. doses three times a day with hydragogue cathartics or rectal injections of hot salt solution (one teaspoonful of salt to a pint of water).

The diet in chronic valvular disease is of importance. Egg albumen, milk and beef juice may be given every three hours. Restrict the amount of liquids. When the patient is better give scraped meat, fish, fowl and eggs. Stimulants such as whisky or brandy may occasionally be given.

ENDOCARDITIS, MALIGNANT or ACUTE ULCERATIVE.

Treatment is of very little avail. Only a few cases recover. All that can be done is to sustain the patient's strength with carbonate of ammonia, strychnine, brandy or digitalis. Apply ice-bag over heart. Do not keep the ice-bag against the skin but interpose a dry light cloth. If the heart and circulation begin to fail, remove the ice-bag and apply hot fomentations over the heart.

Antistreptococcus serum is of doubtful benefit, but may be tried in doses of 10 c.c. repeated once or twice.

ENDOMETRITIS, ACUTE CATARRHAL.

The treatment depends upon the cause, which may be any form of irritation in the uterine mucous membrane, for example, the too frequent occurrence of pregnancy, especially when one after another ends in abortion; polypi and intrauterine fibroids; exposure to wet and cold; gonorrhœa; excessive sexual excitement; diseases of the blood; syphilis, eruptive fevers, typhus, typhoid, cholera, dysentery, etc.

Complete rest in bed must be insisted on, and the patient placed on a fish and milk diet.

Treatment is best started by regulating the bowels.

- | | | |
|-----------|--------------------------|---------|
| R. | Hydrarg. chlor. mit..... | grs. ii |
| | Pulv. rhei..... | grs. xx |
| | Jalap. resin..... | grs. ii |
| | Pulv. zingiber..... | grs. iv |
| M. et ft. | caps. No. i. | |
| Sig. | One at bedtime. | |

Where there is no hemorrhage a hot sitz bath should be ordered night and morning, followed by a hot boric acid douche.

Or:

R.	Acid. tannic	ʒii
	Pulv. alum	ʒi
	Acid. boric	ʒii

M. Sig. One tablespoonful in two quarts of hot water twice a day.

Internally some preparation of Viburnum should be administered.

R.	Tinct. viburn. opul. comp. (N. F.)	ʒiv
----	---	-----

Sig. One teaspoonful in hot water every three hours.

If much pain is present give:

R.	Tinct. opii.....	ʒiv
	Elix. viburn. opul. comp. (N. F.)	
	q. s. ad.....	ʒiii

M. Sig. One teaspoonful in hot water every three hours.

ENDOMETRITIS, CHRONIC.

Childbirth, abortion, and gonorrhœa are the most frequent causes of this disease.

The treatment is constitutional and local. Too much stress has been laid on the local treatment and too little on the general care of the patient's health.

Plenty of good, nourishing food, sunshine and fresh air with moderate exercise should be supplied. If the chronicity of the disease has affected the stomach and bowels they should be carefully treated.

Tonics should be given for long periods of time, such as iron, arsenic, mercury, and cod liver oil.

If due to gout or rheumatism these conditions must be treated.

R.	Elix. ferri, quin. et strych.....	ʒiv
----	-----------------------------------	-----

Sig. One teaspoonful in water after each meal.

Or:

R. Syr. ferri iodid..... ʒ iii
Sig. One-half teaspoonful in water after each meal through a glass tube.

Or:

R. Mass. ferr. carbon..... ʒ ii
Ext. gentian..... grs. vi
Ac. arseniosi..... gr ¼
Mangan. dioxid..... grs. xviii

M. et ft. caps. No. xxiv.

Sig. One after each meal.

Local treatment. The vaginal douche is one of the most important of local methods. Two or more quarts of hot water should be used once or twice a day, with the patient in a semi-recumbent position, with the hips on a douche pan. If the disease is due to sepsis or gonorrhœa, antiseptics and astringents may be added to the water, e. g., corrosive sublimate (1 to 4000), or sulphate of zinc (1 ʒ to 1 pint).

Or:

R. Acid. tannic..... ʒ ii
Acid. boric..... ʒ i
Pulv. alum..... ʒ i

M. Sig. One tablespoonful in two quarts of hot water once or twice a day.

Vaginal tampons may also be used. Glycerine is considered the best menstruum, to which can be added ichthylol (10 per cent), or boric acid (30 per cent).

Intrauterine applications can be made with cotton wrapped around a forceps and dipped into Churchill's solution:

R. Iodin..... grs. lxxv
Potass. iodid..... grs. xc
Spts. vin. rect..... ʒ i

M. Sig. Swab uterus twice a week.

Or:

R. Iodin..... grs. xl
Phenol..... ʒ i

M. Sig. Use with applicator in uterus once a week.

Curettage ought to be done before beginning local treatments.

ENEMA, NUTRITIVE (See Feeding, Rectal).

ENTERIC FEVER (See Typhoid Fever).

ENTERITIS, ACUTE.

Rest and diet are absolute necessities in the treatment. In mild cases all food ought to be withheld for 24 to 36 hours if the patient is in a good state of nutrition. The patient must remain in bed, especially if fever is present. The diet should be of the very lightest, e. g., rice water, barley water, arrowroot water, or oatmeal water. Boiled water and a little tea may be given. Ice water and all waters containing carbonic acid should be avoided.

If the disease is due to improper diet or to decayed food, it is necessary to first give a good dose of castor oil or some other purgative. The following is a good formula for an emulsion of castor oil:

R.	Ol. ricini	3 <i>i</i>
	Pulv. acaciæ.....	3 <i>iii</i>
	Ol. menth. pip.....	gtts. <i>iii</i>
	Aquaë destillat.	q. s. ad 3 <i>iv</i>
M. Sig.	One tablespoonful to a dose.	

It is frequently beneficial to clean out the colon with a large enema containing one dram of ichthyol to the quart of warm water.

If the diarrhoea still continues with considerable pain after the intestine is empty, it becomes necessary to use some preparation of opium. It may be given as follows:

R.	Bismuth. subnitr.....	3 <i>iv</i>
	Tinet. opii.....	3 <i>iv</i>
	Tinet. gambir. comp.....	3 <i>ii</i>
	Tinet. cardamom	3 <i>iii</i>
	Pulv. acaciæ.....	3 <i>i</i>
	Aquaë cinnamon.....	q. s. ad 3 <i>iii</i>
M. Sig.	One teaspoonful every three hours.	

Or:

R. Pulv. opii.....grs. xviii
Plumbi acetat.....grs. xxiv
Pulv. camphor.....grs. xii
M. et ft. caps. No. xii.

Sig. One every three hours.

If severe vomiting should be present a half ounce of champagne given occasionally relieves the vomiting as if by magic.

If the tenesmus is severe a suppository should be inserted into the rectum.

R. Pulv. opii.....grs. xii
Ext. belladonn.....gr. iss
Plumbi acetat.....grs. xxiv
Ol. theobrom.....3 vss

M. et ft. suppos. No. xii.

Sig. Insert one in rectum two or three times a day.

Locally a large linseed poultice over the whole abdomen often helps to ease the pain.

When the symptoms have disappeared the diet should be very carefully regulated. Starchy foods are injurious, such as bread, potatoes, rye bread, cabbage, etc. Bland meat food is more easily taken care of, as chicken broth, chicken jelly, young pigeon, broiled trout, boiled or broiled sweetbreads, etc.

ENTERITIS, CHRONIC.

The longer this disease lasts the more difficult it is to cure. We must have the hearty coöperation of the patient, especially in the matter of diet, and in unnecessary exposure to colds.

If the disease is due to alcohol forbid its use.

If due to inflammation in the colon it is necessary to use high irrigations with warm water to which may be added five grams of boric acid to the quart, or two grams of tannin to the same amount of water.

If it is desirable to cleanse the intestinal tract from above down give a tablespoonful of castor oil. Calomel in $\frac{1}{4}$ grain doses every two hours will also accomplish the work well.

Do not allow the patient to drink very hot or very cold drinks. The diet must be very carefully chosen, it should be semi-solid or liquid. If constipation is present give apple sauce, stewed apricots or stewed prunes, buttermilk and kumiss. Soups of barley, rice, sago or farina agree if well cooked. Eggs, peas, spinach, toast, weak tea, acorn chocolate and milk diluted with lime water and claret is allowable.

All foods containing fats should be avoided, e. g., fatty soups, gravy, fried eggs, fried fish, cheese, lobsters, wine, lemonade, alcoholic liquors, fresh bread, black bread, pancakes, sausages, pastry, strawberries, dumplings, etc.

The drug treatment consists of antiseptics and astringents. The following prescriptions will be found useful:

R.	Salol.....	3i
	Guiacol carb.....	3ss
	Zinc. sulphocarbol.....	3ss
M. et ft. chart. No. xii.	Sig. One every three hours.	
Or:		

R.	Tannigen.....	3i
	Bismuth. subgall.....	3i
	Pulv. opii.....	grs. xii
M. et ft. chart. No. xii.	Sig. One every three hours.	
Or:		

R.	Betanaphtol. bismuth.....	3i
	Bismuth. salicylat.....	3i
	Plumbi acetat.....	grs. xxiv
M. et ft. chart. No. xii.	Sig. One every three hours.	
Or:		

If there is a deficiency of hydrochloric acid in the stomach, the following may be given:

R.	Acid. hydrochlor. dil.....	3iv
	Pepsini C. P.....	3i
	Resorein.....	3i
	Aquæ.....	3iss
	Syr. aurant. cort..... q. s. ad.	3iii

M. Sig. One teaspoonful in wineglassful of water after each meal.

ENTEROCOLITIS (See Ileo-Colitis).

ENTEROPTOSIS (GLENARD'S DISEASE, DOWNWARD DISPLACEMENT OF THE VISCERA).

The patient should not wear tight corsets nor tight waistbands with heavy skirts. The skirts should be suspended from the shoulders rather than from the hips. Only those belts or abdominal supporters should be used which encircle the abdomen and exercise the same degree of pressure over the whole abdominal surface. These belts will increase the intra-abdominal pressure, elevate the intestines and keep them in their new position. The patient should be taught how to replace the viscera. The patient should then do this every morning in bed and apply the belt before the erect posture is assumed. The strength of the abdominal muscles should be increased by regulated exercise. The bowels should be regulated, the food should be nutritious and every measure possible should be taken to raise the tone of the whole muscular system. Many small meals are better than a few heavy ones, since the overloaded stomach might increase the ptosis.

Surgical treatment should be undertaken only after other methods have failed and then always with the greatest caution. These consist in taking reefs in the lengthened mesenteries, lifting the stomach and fixing the serosa of the lesser curvature of the stomach to the anterior wall of the abdomen, and, where

there is separation of the recti muscles, suturing the edges of these muscles together.

ENTROPION. (Turning in of the eyelids.)

Treat the cause such as diminution of size of the eyeball, spasm of the orbicularis, bandaging the eye, enucleation, etc.

In mild cases cure may follow the pulling out of the intruding eyelashes and the application of several coats of collodion to the skin of the inturning lid. Adhesive strips answer the same purpose. If simple remedies fail, a piece of the eyelid must be excised, and the two opposing surfaces brought together.

ENURESIS IN CHILDREN.

Successful treatment depends on discovering the cause. Every organ and reflex must be carefully studied. The feces and urine must be frequently examined. Look for phimosis, pin worms, enlarged tonsils, adenoids and stone in the bladder. Proper diet, hygiene, habit and training are the elements of success in treatment.

Diet. Children should be fed on easily digested food. Avoid overfeeding especially before bedtime. Alcoholic drinks and all liquids should be withheld before retiring. Many children have chronic intestinal indigestion and should be treated for such. A plain enema before retiring is of service.

Hygiene. Mental and physical exertion should be avoided. Children should be taught regular habits as to diet, exercise and sleep, also as to the evacuation of the bowels and bladder. The urine should be held as long as possible in the daytime. At night the child should be awaked at a certain time to urinate. The cold spinal douche is of benefit in some cases. Children should have a hard bed and moderate covering. Elevation of the foot of the bed and other measures to prevent the child from lying on the back should be insisted on.

Medicinal treatment. If the enuresis is due to highly acid or irritating urine give the following:

R.	Potass. acetat.....	3ii
	Potass. citrat.....	3ii
	Fluidextr. buchu.....	3ii
	Fluidextr. tritici..... q. s. ad	3iii

M. Sig. A teaspoonful in hot water three times a day.

For weakness of the sphincters give such drugs as strychnine, quinine and ergot, or iron and arsenic when necessary as a tonic. Atropin should be pushed for weeks and months; when cure results the dose may be gradually lessened. For a child five years old give:

R.	Atropin. sulphat.....	gr. 1/4
	Aquæ.....	q. s. ad 3i

M. Sig. Five to ten drops every four hours and gradually increase.

When due to masturbation tincture gelsemium in physiological doses may be given along with sodium bromide. For a child ten years old, give:

R.	Tinct. gelsemii.....	gtts. xxx
	Sodii bromidi.....	3iii
	Tinct. belladonn.....	gtts. lxiv
	Aquæ	3iss
	Syr. aurant. cortic..... q. s. ad	3iii

M. Sig. One teaspoonful three times a day.

When due to weak innervation of the bladder give strychnine and ergot for a long period of time. For a child five years old prescribe:

R.	Strych. sulphat.....	gr. 1/4
	Fluidextr. ergot.....	3ii
	Aquæ.....	3ii
	Syr. rub. idæ..... q. s. ad	3iii

M. Sig. One teaspoonful in water three times a day.

EPIDIDYMITIS and ORCHITIS.

Rest in bed should be insisted upon. The testicle must be elevated either by placing a pillow under it

or by pulling it up with rubber adhesive plaster. Locally use ice in the beginning to try to abort the attack. If inflammation progresses, resort to hot linseed poultices for the relief of pain. We may also use for the same purpose:

R. Lotio plumbi et opii 3viii

Sig. Apply hot to testicle with gauze.

When the inflammation begins to subside use the following:

R. Ungt. hydrarg.

Ungt. belladonn.....āā 3vi

M. Sig. Apply twice a day.

Strapping the testicle is also a very useful measure. It is done in the following way: Shave the scrotum and push the testicle down as far as possible in the sac, and place a strip of adhesive plaster above it to prevent the testicle from slipping upward. Now apply circular and longitudinal strips of plaster. This reduces the swelling. A snugly fitting suspensory is of good service.

Internally give a few doses of calomel followed by a saline. Place the patient on a milk diet. For the fever and pain give:

R. Antipyrini..... 3iss

Tinct. aconit..... gtts. xvi

Codein. phosphat..... gr. iiiss

Aq. menth. pip..... q. s. ad 3ii

M. Sig. One teaspoonful every two hours if necessary for the pain.

If the disease is secondary to mumps the same treatment should be employed.

EPILEPSY.

A symptom of many pathological states. Treat any possible cause of irritation, e. g., brain tumor, gumma, decayed teeth, worms, uterine trouble, adenoid growths, phimosis, stricture, fissure; astigmatism or other error of refraction.

Maintain the general health with good food, fresh air and tonics, friction, cold baths, and exercise. Diet should be almost vegetarian. Meats are injurious, but moderate use of game, poultry, fish and oysters is advisable. Fresh vegetables, fruit, milk and bread ought to be the chief part of an epileptic's dietary. All stimulants should be prohibited except perhaps mild coffee.

Abortion of attack. If aura begins in an extremity, an encircling blister or ligature about the arm often stops its progress. Also the inhalation of ammonia, or of nitrite of amyl, or swallowing a tablet of nitro-glycerin ($\frac{1}{50}$ gr.)

R. Margarit. amyl. nitrit.....gtts. v No. x.

Sig. Crush a pearl in handkerchief, lie down, and inhale, when threatened with an attack.

Treatment of status epilepticus. Inhalations of chloroform, ether, or amyl nitrite. Hypodermic injections of hyoscine ($\frac{1}{100}$ gr.), hyoscyamine ($\frac{1}{60}$ gr.), picro-toxin ($\frac{1}{60}$ gr.), or morphine ($\frac{1}{4}$ gr.) Enemas of chloral (20 to 30 grs.), and the hot bath.

Internal remedies. The most reliable are the bromides, especially those of sodium, ammonium and potassium. One to two drachms of sodium bromide may be given daily in divided doses, the largest one just before the expected attack.

Or give:

R. Potass. bromid.

Ammon. bromid.....	$\frac{1}{2}$ āā	3iii
Liquor potass. arsenit.....		$\frac{1}{2}$ i
Antipyrin.....		$\frac{1}{2}$ i
Aquæ menth. pip.....q. s. ad		3vi

Sig. A tablespoonful in water night and morning.

When the stomach is weak lithium bromide is preferable.

R. Lithii bromid.....		3i
Aquæ.....		3iss
Syr. aurant. cort.....q. s. ad		3iii

M. Sig. One teaspoonful three times a day in water.

Treatment with 20 grs. of bromides should be kept up for one year, then reduced to 10 grs. for another year, and reduced still further to 5 grs. for the third year.

EPILEPSY, JACKSONIAN.

Look for cause and if possible remove it, e. g., meningitis, brain tumor, traumatism, syphilis, etc.

In all cases of doubt as to whether syphilis is the cause give iodide of potassium, e. g., for a boy of ten years:

R. Potass. iodid..... 3iv

Aquæ..... q. s. ad 3iii

M. Sig. One teaspoonful three times a day. Mercury should also be given. Thus for a child four years old give:

R. Hydrarg. cum creta..... grs. xxiv

Sacchar. albi..... grs. xlviii

M. et ft. chart. xxiv.

Sig. One three times a day.

EPISTAXIS. (NOSE, BLEEDING AT.)

Do not check unnecessarily vicarious bleedings of menstruation, of plethora, or of the crises of certain fevers.

The patient should have absolute rest, and the head should be kept erect, not forwards and downwards as is commonly done. If the bleeding comes from the anterior part of the nasal cavity, pressure of the alæ against the nasal septum will often stop the bleeding. The application of cold to the nose or the insufflation of cold water is also effective. Dry the place where the bleeding is taking place with absorbent cotton and apply nitrate of silver, chromic acid or the galvano-cautery. Astringents like alum or tannin are also useful.

When these simple means fail, pack part of the nasal cavity where the bleeding is. Introduce a

narrow strip of surgical gauze and pack it against the bleeding part. The gauze may be soaked in adrenalin solution 1 to 1000.

The following solution is frequently followed by prompt cessation of the hemorrhage:

R. Antipyrin.....grs. xx

Aquæ.....ʒi

M. Sig. Inject into nose lukewarm with nasal syringe.

If there is a hemorrhagic tendency, calcium chloride should be given internally:

R. Calcii chloridi.....ʒiii

Fluidextract. ergotæ.....ʒii

Aquæ.....ʒi

Syr. limonis.....q. s. ad. ʒii

M. Sig. One teaspoonful every two hours.

Feeding the patient on gelatin is also useful. The ordinary flavored gelatins on the market answer the purpose well, especially in the case of children.

ERYSIPelas.

Prophylaxis. The patient should be isolated in a room free from draperies. All wounds and scratches on the attendants should be antiseptically dressed when waiting on a patient who has erysipelas. During epidemics of erysipelas all wounds should receive special attention because of the danger of infection. An erysipelatous patient should never be admitted to a general hospital where operations are performed unless it contains a special isolation building. No physician should go from a case of erysipelas to an obstetrical case. One attack does not confer immunity from a second attack but predisposes to it.

The local treatment consists in applications to relieve pain and tension:

R. Lotio plumbi et opii.....ʒviii

Sig. Apply on gauze and soak with the above frequently.

Solution of carbolic acid (1 in 40) is also of service.
Ichthyol is one of the most useful local applications
(10 to 20 per cent):

R.	Resorcin.....	3i
	Ichthyol.....	3i
	Ungt. hydrarg.....	3iv
	Lanolin.....	3iv

M. Sig. Anoint the affected parts with this and cover with oiled silk. Then envelop in a light dressing and bandage.

The general treatment is symptomatic. The fever is best reduced by cold sponging and cold applications.

The salicylates and phenacetin are of benefit in relieving pain and headache:

R.	Phenacetin.....	3iss
	Salol.....	3iss
	Quin. sulphat.....	grs. xviii

M. et ft. caps. No. xviii.

Sig. One every three hours.

Tincture of the chloride of iron in 15 to 30 minim doses has been given for many years but it is of doubtful benefit.

Erysipelas is a self-limiting disease.

ERYTHEMA INTERIGO (See Chafing).

ERYTHEMA, SIMPLEX, NODOSUM and MULTIFORME.

There is little difference between the causes and treatment of the above forms. They are associated with either intestinal or rheumatic disturbances.

If due to absorption of deleterious intestinal products give intestinal antiseptics as salol, guiacol, zinc sulphocarbolate and laxatives:

R.	Hydrarg. chlor. mit.....	grs. iii
	Sacchar. lactis.....	grs. xviii
	Saloli.....	3iss
	Zinci sulphocarbolat.....	3i

M. et ft. caps. No. xviii.

Sig. One every three hours.

The diet should also be regulated, especially in children.

If the erythema is due to rheumatism give anti-rheumatics as sodium salicylate, wine of colchicum root, aspirin, etc.:

R.	Aspirini.....	5 iss
	Salicini.....	5 iss

M. et ft. caps. No. xviii.

Sig. One every four hours with hot water.

The local treatment is directed against the redness and burning of the skin. Dusting with flour or the application of a lotion should be employed when productive of a sense of comfort to the patient:

R.	Acidi borici.....	3 ss
	Acidi carbolici.....	gdds. x
	Glycerini.....	3 ii
	Aq. rosæ.....	q. s. ad 3 iv

M. Sig. Apply three or four times a day.

The following dusting powder may also be used:

R.	Pulv. amyli.	
	Pulv. zinci oxidii.....	3 iv
	Pulv. camphor.....	3 i

M. Sig. Use three times a day.

EYE, ARTIFICIAL.

An artificial eye may be fitted as soon as the wound left after enucleation is entirely healed, usually in the second or third week. To put the eye in: Place the left hand flat upon the forehead, and with the two middle fingers raise the upper lid toward the eyebrow; then, with the right hand push the upper edge of the artificial eye beneath the upper lid, which may be allowed to drop upon the eye. The eye must then be supported with the middle fingers of the left hand while the lower eyelid is raised over its lower edge with the right hand. To take the eye out: The lower lid must be drawn downward with

the middle finger of the left hand; and then, with the right hand, the end of a small pin must be put beneath the lower edge of the artificial eye, which must be raised gently forward over the lower lid when it will readily drop out. The artificial eye must be removed every night and carefully cleaned.

EYE FATIGUE.

General hygienic measures may be necessary. Treat digestive troubles and regulate the bowels. Attend carefully to any accompanying irritation of the conjunctiva. In some cases it may be necessary to use pupil dilatants (mydriatics) such as atropin, cocaine or hyoscyamin, to assure complete physiological rest of the mechanism of accommodation. In other cases it may be necessary to stimulate mildly the accommodation by the use of pupil contractors (miotics) especially of pilocarpin in a weak solution. Strychnine is of special value to students during the strain of eyework in preparation for examinations.

EYE, FOREIGN BODIES IN.

Foreign bodies rarely attach themselves to the conjunctiva of the bulb or to that of the lower lid. They usually rest on the tarsal conjunctiva of the upper lid or on the cornea.

Instil a few drops of a 2% solution of cocaine into the eye. Grasp the upper eyelid, asking the patient to look downwards, then with a lead pencil laid in the tarsal fold, grasp the lid by the eyelashes and turn the lid over. Then look for the foreign body, and if found, remove with a sharpened match stick or toothpick which has a little moist absorbent cotton wrapped round the sharp end.

If the foreign body is a caustic, use dilute vinegar for an alkali and a solution of bicarbonate of soda for an acid. Application of castor oil soothes the raw surface.

If the foreign body is lodged on the cornea, remove

it with a sharp pointed needle or special remover. While doing this stand behind the patient who sits on a chair in front resting the head against the operator. Fix the cornea by placing one finger firmly on the lower lid and the other on the upper lid. If the foreign body is difficult to see, have an assistant hold a magnifying glass over the cornea.

After the foreign substance is removed prescribe the following eyewash:

- R. Sodii biborat.....grs. xii
Aq. camphorat..... 3ii
Sat. sol. ac. boric..... q. s. ad 3ii

M. Sig. Ten to twenty drops in eye every two hours.

When the foreign body penetrates the eyeball, the general practitioner should put on a wet antiseptic dressing and take the patient to a specialist, because great judgment is necessary to decide whether an iridectomy or complete enucleation is indicated. Pernicious tampering may cause the patient to lose the sight of the other eye through sympathetic inflammation.

EYESIGHT, IMPAIRMENT OF, IN SCHOOL CHILDREN.

Prophylaxis. The printing in school books should be of the most legible character. The lines should be amply spaced or leaded. The paper should be white with a dull unreflecting surface. Blackboards should be kept clean and black. Slates are not so good as paper, for they become greasy, their writing is more illegible than that of paper, and they are more insanitary. While writing, the pupil should not assume bad postures but should sit erect and the book should not come nearer to the eyes than twelve inches. Children who are found by the teacher to be short-sighted should be properly seated with respect to the light, and the defect of the eyesight should be reported to the parents so that the proper glasses may be bought.

FAINTING. (COLLAPSE, SYNCOPÉ.)

Patient should be placed in a horizontal position with the head low. Give fresh air and sprinkle cold water over the face and chest. Sal volatile may be applied to the nose, and mustard or the electric brush over the cardiac region.

Internally, give cardiac stimulants such as *nux vomica*, *digitalis*, coffee, ether, or alcohol, either in the form of champagne or brandy.

Where fainting is repeated at short intervals, give:

R.	Strych. sulph.....	gr. $\frac{2}{3}$
	Tinct. digital.....	3ii
	Tinct. strophanth.....	gtt. xxx
	Elix. simpl.....	q. s. ad 3iii
M. Sig. One teaspoonful every three hours.		

FARCY (See Glanders).

FAVUS. (TINEA FAVOSA.)

Being a parasitic disease it must be treated by local antiseptics. The diseased hair should be extracted. The crusts must be loosened and removed by rubbing with sweet oil, or green soap and hot water.

Or:

R.	Formalin.....	m iv
	Ol. olivæ.....	3vi
M. Sig. Keep the crusts soaked until easily removable.		

Then apply one of the following parasiticides, mercury, sulphur, chrysarobin, etc.:

R.	Resorcin.....	grs. xxx
	Ungt. pieis.....	3i
	Ungt. sulphuris.....	3i

M. Sig. Apply freely twice a day after removing the crusts.

Or:

R.	Hydrarg. bichlor.....	grs. vi
	Ac. acet. dil.....	3vi
	Sod. borat.....	5ss
	Aq. rosæ.....	q. s. ad 5iv

M. Sig. Apply morning and night.

Treatment must be continued for a long time to prevent recurrence.

Radiotherapy has given very encouraging results. The affected patches should be exposed to a tube of low vacuum for from 10 to 15 minutes twice or thrice a week until the hairs fall out. Protect the healthy scalp with lead foil.

FECES, IMPACTION OF.

Give large enemata of oil, soapsuds, salines, etc., in the knee-chest position. If these fail perform laparotomy and manipulate the intestine so as to break up the mass. Colotomy may be performed if the colon is ulcerated and there is danger of rupture.

Prevent recurrence by toning up the intestine with belladonna, nux vomica, aloes and cascara sagrada. Daily massage of the abdomen and a proper diet should be recommended; see **Constipation**.

FEEBLE-MINDEDNESS IN CHILDREN. (IMBECILITY.)

The legs of the child may be strengthened by massage and passive movements, and it may be taught to walk by various mechanical devices. A careful and watchful nurse should teach habits of cleanliness of the person and be on the lookout for bad habits, as masturbation. It may be necessary to tie the child at night. After the child has learnt the simpler things at school, manual and industrial training should follow. Better results are obtained in a good institution than at home.

Surgical intervention such as tapping the lateral ventricles in hydrocephalus or trephining is rarely justifiable.

It may be stated as a general rule that it is the duty of instructors to teach very young children,

concrete things and not abstract conceptions, and this duty becomes absolutely imperative in the case of the feeble-minded.

FEEDING, FORCIBLE, DIRECTIONS FOR.

Introduce a soft rubber stomach tube into the stomach by way of the mouth or nostril. Then attach to the outside end by means of a connecting glass-piece another rubber tube with a funnel attachment. Pour the food in liquid or semi-liquid form from a vessel into the funnel. At first the funnel should be lowered so as to prevent the entrance of too much air into the stomach, and then it should be raised to about the level of the patient's face until it has all been ingested. In withdrawing the tube be careful to compress it with the fingers so that no contents may escape from it while it is in the pharynx.

A quart and a half of milk with three raw eggs beaten up in it may be given twice a day. The milk may also be combined with cream, beef juice, puree of brain, peas, etc., and a tablespoonful of sugar and a little salt may be added.

FEEDING OF INFANTS AND CHILDREN.

For the first eight or nine months the sole nourishment of the infant should be the milk of its mother, if she is healthy. For the first six weeks the infant should be "nursed" every second hour from 5 a. m. till 11 p. m., and should be removed from the breast whenever it shows any inclination to stop sucking. From six weeks up to eight months the intervals should be three, gradually increasing to four hours. After the eighth month, other foods may be given sparingly, and the child should be gradually weaned between the tenth and twelfth months.

If the mother is unable to suckle the child, obtain a young and healthy **wet nurse**, which see.

If that is too expensive, the infant may be reared on substitute foods, such as the milk of the cow,

ass, or goat. Cow's milk is a food which, compared with breast milk, contains a little less fat, an excess of indigestible proteids, an insufficiency of sugar, and an excess of saline matter; we must try therefore to so modify its composition and the character of its proteids as to render it suitable and digestible by the young infant. Besides, human milk is alkaline and practically sterile, while cow's milk as it reaches the consumer is usually slightly acid and always contains bacteria. Hence the cow's milk should not only be modified but sterilized.

By diluting cow's milk with water the proportion of proteid (casein) can be reduced to its proper level, while the addition of cream and milk sugar (lactose) gives the cow's milk its proper amount of fat and sugar. The water for dilution should be boiled, and it is better to use very thin barley water, this prevents the curds formed being too large. Sterilization of the milk is best done in a proper milk sterilizer; failing which, heating the milk to the boiling point and then cooling rapidly is the method employed. Pasteurization of milk consists in keeping it for at least twenty minutes at a temperature of 150° to 160° F. This process is found to destroy pathogenic microbes, and the natural taste and quality of the milk are retained.

Up to the age of one month the dilution should be in the proportion of two of water to one of milk; from one to three months equal parts; from three to four months, two of milk to one of water; from four to five months, three of milk to one of water. From the fifth month onward, the milk may be given undiluted.

Sixty grains of milk sugar should be added to every four ounces of diluted milk.

One dessertspoonful of cream to every four ounces of diluted milk will supply the proper proportion of fat.

Between the ages of twelve and eighteen months, the child should have five meals in the day; at 6 a. m., milk and a plain biscuit; at 8 a. m., bread and milk, or oatmeal porridge and milk; at noon, mashed potato and gravy or broth, milk pudding, egg custard, milk and barley water; at 4 p. m., bread and butter, the yolk of a lightly boiled egg, or bread and milk; at bedtime, milk and a biscuit.

FEEDING OF PREMATURE INFANTS.

About six hours after birth give a warm solution of milk sugar (5%) half a teaspoonful every hour. After twenty-four hours add an equal part of milk got by massage and expression or by the breast pump from a wet nurse if possible who is two or three weeks post partum. Increase the amount gradually so that by the end of the week the child will be taking about an ounce every hour. Gradually increase the amount of breast milk and diminish the solution of sugar. Feeding can be carried on by a small medicine-dropper or by sucking through a small nipple. When an infant is very weak and will not suck or swallow, forced feeding may be necessary. As soon as the baby is strong enough it should be tried at the mother's breast.

FEEDING, RECTAL.

This procedure is used when the patient is unable to retain food by the mouth, or when it is not desirable to feed him in that manner. About one-fourth of the nourishment necessary to maintain life can be absorbed in this way. Rectal feeding may be successful for four to six weeks if carefully carried out.

Solutions for rectal feeding should be between 90° F. and 95° F., if too hot or too cold they are promptly rejected. It is very necessary to have the patient in proper position; he should lie on his side with the hips elevated, or the foot of the

bed should be sufficiently raised. The tube should be one-half inch or less in diameter. Lubricate it with oil but not with glycerin. It should be introduced into the rectum for eight or ten inches. Allow the enema to flow in slowly, instructing the patient to be as still as possible and to occupy his mind with other affairs.

Should the enema be rejected precede it by a small suppository of opium, or fifteen drops of tincture of opium may be added.

If hemorrhoids are present, a soothing ointment should be applied before and after the enema, e. g.:

R.	Cocain. muriat.....	grs. xv
	Zinc oxidi.....	3 ii
	Bismuth subnitr.....	3 ii
	Lanolin	3 ss
	Petrolati	q. s. ad 3 ii

M. Sig. Apply before and after each enema.

The quantity of each enema should not exceed one-half pint; frequently the rectum will not retain more than from 1 to 4 ounces.

Every 5 or 6 hours is often enough for rectal feeding. If intense thirst is present, weak salt solution enemas may be given.

After operations in the vagina where there is a good deal of gauze packing, the rectum will not hold much food and consequently interfere with the giving of the enema.

The following are some recipes extensively used in general practice:

1. Egg and Milk Enema.

Milk.....	8 ozs.
Eggs.....	3
Salt	½ 3

2. Sugar and Milk Enema.

Grape sugar.....	2 ozs.
Milk.....	8 ozs.

3. Pancreas Enema (Leube.)

Pancreas	2 ozs.
Lean meat.....	5 ozs.
Fat.....	1 oz.
Lukewarm water.....	5 ozs.

The mixture should be chopped fine.

4. Milk and Peptone Enema.

Milk.....	8 ozs.
Peptone.....	2 ozs.

5. Singer's Enema.

Milk.....	4 ozs.
Wine.....	4 ozs.
Yolks of eggs.....	1 or 2
Salt	½ 3
Witte's peptone.....	1 3

6. Riegel's Enema.

Milk.....	8 ozs.
Eggs.....	2 or 3
Salt	½ 3
Red wine	1 or 2 ozs.

7. Jaccoud's Enema.

Bouillon.....	7 ozs.
Wine.....	4 ozs.
Yolks of eggs	2
Dry peptone.....	1 to 5 3

FEET, SORE, FROM WALKING.

Preventive: Soap the feet or inside of socks and use strong alum foot baths. Sore feet should be well washed, dried and then greased, and salicylate of soda dusted on to check excessive perspiration. Prevent chafing of shoes by means of a powder made up of 3 parts salicylic acid, 10 parts of starch, and 87 of powdered soapstone. Or give:

R. Sodii salicyl.....	grs. xxx
Potass. permangan.....	5i
Bismuth. subnitrat	3iss
Acid. boric.....q. s. ad	3iii

M. Sig. Dust on feet and into stockings and shoes every morning.

FILARIASIS.

Prophylaxis. Those who are infected by filariæ should sleep below mosquito bars. In filaria countries (East and West Indies, Brazil, India and China) every one should use mosquito bars and mosquitoes should be exterminated as far as possible (see **Malaria, Prophylaxis Personal and Public**). Persons known to be infested with filariæ should avoid injuries which might cause the parent filariæ to abort or might cause rupture in congested lymphatic areas.

Treatment. For the chyluria, lessen the pressure on the vessels of the leaking renal or vesical lymphatic varix by placing the patient in the recumbent position with raised pelvis until the urine becomes clear and free from clot and albumin. To lessen the chylous appearance of the urine all fats and albuminoids should be avoided and the amount of fluid drunk restricted. Give a saline aperient occasionally.

Support varicose inguinal glands or a lymph-scrotum by a well-adjusted bandage. Excise a lymph-scrotum when it is passing into a confirmed elephantiasis.

Tap a chylocele, then inject or incise it. Amputate elephantiasis of the scrotum, retaining the penis and testes.

Treat elephantiasis of the leg by rest, elevation, massage and elastic bandaging. During acute attacks prick the distended limb so as to provide an escape for the effusion and dress the parts antiseptically.

FLATULENCE (See **Dyspepsia, Flatulent**).

FLOATING BODIES BEFORE THE EYE. (**MUSCAE VOLITANTES**.)

Most patients who complain of muscæ have some error of refraction (myopes). If this be corrected relief is obtained.

If due to liver trouble, potassium iodide may be used.

The eye may be rested and neutral-tinted glasses worn to render the muscæ less visible.

The condition is also frequently due to anæmia and must be treated:

R.	Ferri reduct.....	grs. xlviii
	Quin. sulph.....	grs. xii
	Extr. nuc. vomic.....	grs. vi
	Acid. arsenios.....	gr. $\frac{1}{4}$
M.	et ft. caps. No. xxiv.	
Sig.	One four times a day.	

FOOD POISONING.

If the vomiting induced by the poisonous food is not sufficient to relieve the stomach of its contents, gastric lavage should be resorted to. Repeated fractional doses of calomel followed by a saline, will empty the intestine. Relieve abdominal cramps with hot water bags or compresses, or by hypodermic injection of morphine if necessary. Combat the tendency to collapse by hypodermic injection of alcohol and strychnine, and stimulants by the mouth when the gastric irritation has passed.

FRECKLES, REMOVAL OF.

Apply the following lotion to the face morning and evening:

R.	Zinci sulphocarbolat.....	5i
	Glycerini.....	3ii

M. Sig. External use.

Cover the freckles every other day with the following ointment:

R.	Hydrarg. ammoniat.	
	Bismuth. subnitrat.....	aa 5i
	Glycerit. amyl.....	q. s. ad 3ss

M. ft. ungt.

Sig. External use.

When there are only a few freckles, all that is necessary is to apply peroxide of hydrogen with cotton on the end of a toothpick twice a day.

A veil should be used to protect the face from the sun.

FRENKEL'S TREATMENT OF ATAXIA BY CO-ORDINATED EXERCISES.

It should first be explained to the patient that his inability to walk is not due to muscular weakness, but to an inability to associate movements correctly; that the method of treatment is really a process of re-education, and that it is not the muscular force which he uses in performing the exercises which is of importance, but the care and precision with which he makes the individual movements.

Exercises while in bed. The patient lies on his back in bed and slowly raises his extended leg until he touches with his great toe the finger of the attendant held immediately above his foot, at a distance of about two feet from the bed. This exercise should be repeated several times with either leg.

Still lying on his back he flexes his leg on the thigh to its full extent, and then slowly flexes the thigh on the abdomen; the whole limb is then gradually extended until he touches with his great toe the finger of the attendant, which is held in the same position as in the previous exercise. The limb is then slowly lowered to the bed.

For the next exercise a simple piece of apparatus is necessary, namely, two boards $3\frac{1}{2}$ feet long and nine inches in breadth. One long edge of board A is attached along the middle of B, so that, looked at from the end the extremities of the board form the letter T, the limbs of the T corresponding to the breadth of the boards, namely, nine inches. The apparatus is placed across the foot of the bed, resting on board B. Along the unattached edge of board A are six grooves $1\frac{1}{2}$ inch deep, 3 inches wide, and at a distance of 3 inches from each other.

The patient lies on his back with his heels resting in two of these grooves; at the word of command he lifts one heel from the groove in which it lies and places it accurately in the groove named by the attendant. For this purpose it is convenient to have the grooves numbered; they should also be well padded.

Standing exercises. A very ataxic patient who has been long confined to bed has forgotten how to stand, and when helped out of bed his legs slide away from under him. His feet are to be placed in position, and, with some one supporting him on either side, he is to be encouraged to practice his balancing power, gradually putting more and more weight upon his legs. He is to practice standing with his feet close together, lifting one foot off the ground and placing it down again accurately.

Walking exercises. A black stripe twelve inches broad is painted across the floor of a room or on a piece of oilcloth. The patient walks along this stripe, either with support or in the go-cart, taking care to keep his feet within its margins. He next practices walking along a similar stripe, on which at distances of one foot cross lines are painted. This is more difficult than the last exercises, for he has not only to keep his feet within the limits of the black stripe, but whenever he takes a step the toe must be placed down exactly at the cross line. This exercise is very important, since, by teaching the patient to take steps of regular length, it greatly simplifies the co-ordination required in the act of walking. The patient next proceeds with more difficult exercises upon a narrower stripe six inches in breadth.

As soon as the patient has learned to walk on level ground fairly and confidently, he may be taught to walk up and down stairs. In a hospi-

tal where cases of tabes are constantly being treated, a specially constructed staircase of several steps, three or four feet in breadth, will be found of value. With a rail in each hand the patient soon acquires confidence, and makes more rapid improvement than on an ordinary staircase. In a private house, where such a staircase is not available, he will probably at first require the support of an arm while he holds the banister in his other hand.

Many other exercises may be devised for the lower limbs and for the upper limbs as well.

The length of time daily which should be given to the exercises must depend on the individual case. A quarter of an hour two or three times a day, will probably be sufficient at first. An exercise must be stopped on the earliest appearance of fatigue, or if there are any signs of the patient's attention beginning to wander.

This method of treatment can be heartily recommended by the authors, who have had some remarkable results from it. One patient who was bedridden for three years was able, after six months' treatment by Frenkel's method, to climb a ladder and work at his trade as a painter.

FRIEDREICH'S ATAXIA. (HEREDITARY ATAXIA.)

The same treatment as in *Tabes Dorsalis*, which see. Potassium iodide does not benefit many cases. Massage and other methods for the prevention of contractures should be adopted.

FUMIGATION, PRACTICAL DIRECTIONS FOR.

1. By burning sulphur. Tightly close all windows and doors except the door of egress. Paste strips of paper securely over keyholes and cracks, and leave no opening through which gas can escape. Hang clothing, bed-covers, window shades, curtains, etc., on lines across the room. Open mattresses, trunks, and pillows so as to expose inside to the

fumes. Calculate the cubic contents of the room and use three pounds of powdered sulphur for every 1,000 cubic feet (a room 10x10x10 feet). Take a common washtub, place in it four bricks, pour in water to the level of the top of the bricks, put a deep pan containing the required amount of sulphur on the bricks, then place the tub and contents on the table. Moisten the sulphur with alcohol and ignite. When the sulphur begins to burn, leave the room, close the door of egress, paste strips of paper over the keyhole, and over all chinks in the door. Keep the room closed for at least ten hours. After the expiration of that time open the room, take out all articles and place them in the sunshine. Beat the carpets well and expose them to the sun. Next thoroughly wash all surfaces in the room, floor, walls, and ceiling, with a reliable disinfectant. If the walls and ceilings are plastered, wash them with lime. Next ventilate the rooms for some hours and scrub all woodwork with soap and hot water.

2. By pouring formaldehyde solution over crystals of potassium permanganate. A 14-quart milk-pail, set in a wooden bucket to prevent loss of heat, is used as the receptacle, and into this is placed a quantity of crystals of potassium permanganate (10 ounces to every 1,000 cubic feet of room space, or 13½ ounces when the temperature is below 60° F.). Over this salt is poured "formalin," or the 40% aqueous solution of formaldehyde (24 ounces to every 1,000 cubic feet of room space, or 32 ounces when the temperature is below 60° F.). The formaldehyde gas is immediately liberated, and the operator should leave the room at once. All the rest of the fumigation is the same as that given under sulphur.

GALACTORRHEA. (EXCESSIVE SECRETION OF MILK.)

The breasts should be firmly tied up after being emptied with the breast pump. They may be rubbed with belladonna ointment or a solution of atropin may be painted on them.

Internally atropin or iodide of potassium should be given. Atropin may be given in the form of the sulphate, $\frac{1}{100}$ gr. to a dose every three hours until the mouth becomes dry:

R.	Atropin. sulphat	gr. ss
	Aquæ anisi.....	ʒ vi

M. Sig. One teaspoonful three times a day until the mouth becomes dry; then reduce the dose.

The following prescription containing iodide of potassium is useful:

R.	Potass. iodid	grs. xxiv
	Iodini	grs. xxiv
	Syr. tolu.....	ʒ vi
	Aquæ.....	q. s. ad ʒ iii

M. Sig. One teaspoonful in hot water every four hours.

A good local application is:

R.	Pulv. camphor.....	ʒ iv
	Lanolin.....	ʒ ii

M. Sig. Apply freely to the breasts three times a day.

Or:

R.	Atropin. sulphat.....	grs. xii
	Aquæ rosæ.....	ʒ iii

M. Sig. Apply to the breasts on a piece of gauze.

GALL STONE DISEASE (See Cholelithiasis).

GANGRENE.

Prophylaxis. When gangrene is threatened combat the inflammation and favor the return circulation with massage and external heat. Envelop the part in hot flannels which should be changed frequently. Support the patient with tonic and stimulant remedies.

Treatment. This varies widely with the cause, which should be carefully searched for. Examine specially the condition of the blood vessels. Examine the urine for albumin and sugar. Then treat

the cause if found. In some cases amputation is advisable, in others, nature should be allowed to take her course, e. g., in the dry gangrene of old people.

When the gangrene has become complete, local remedies are of no avail except to favor the production of sloughs, to hasten their separation and to render the odor less offensive.

The following may be used as an antiseptic and deodorant:

R. Hydrarg. chlor. cor.....grs. viii
Sol. hydrogen dioxid.....ʒ xxxii
M. Sig. (Poison) Apply to affected area freely two or three times a day.

Or:

R. Potass. permangan.....ʒ ii
Aqua destillat.....ʒ xvi
M. Sig. Apply freely as wash, three times a day.

GANGRENE, SYMMETRICAL (See Raynaud's Disease).

GASTRECTASIS (See Dilatation of the Stomach).

GASTRIC ULCER. (PEPTIC, ROUND or PERFORATING ULCER.)

Rest in bed is essential for about six weeks after the diagnosis is made. After this the change to walking should be very gradual and the patient should rest after each meal. Rest to the stomach is also necessary and the patient should be fed by rectal enemas for the first week. The rectal enemas should be given every six hours and should contain six ounces of broth with egg, a little salt and, if necessary, a little whisky. (See Feeding, Rectal.) The rectal feeding should be gradually decreased while alimentation by the mouth is being resumed. The diet should consist at first of milk and lime-water, strained oatmeal gruel, or albumin water, a few ounces every two hours. The greatest care should

be taken in changing to a more solid diet consisting of soft boiled eggs, minced white flesh of chicken, pounded fish, tender beef and light puddings.

About two weeks after this treatment has begun Carlsbad salts in drachm doses in warm water should be given early every morning as a laxative. Alkalies such as bicarbonate of soda combined with magnesia may be given to relieve the acidity. Stupes, sinapisms or a wet compress over the epigastrium are useful in allaying the pain, but if the pain is severe, morphine may be needed. The vomiting may be relieved by ice, bismuth or nitrate of silver. The following prescriptions may be given alternately for a period of about a week each:

R. Argent. nitrat.

Extr. belladonn.....āā grs. vi

M. ft. pil. No. xx.

Sig. One pill half an hour before meals.

And:

R. Bismuth. subnitrat..... ʒ vi

Acid. hydrocyan. dil..... m. xxiv

Aquæ..... ʒ vi

Sig. A tablespoonful three or four times a day, half an hour before meals.

For the hematemesis absolute rest and quiet, ice to suck, and 10 to 20 drop doses of a solution (1 to 1,000) of adrenalin chloride every 3 hours are of value, but if the bleeding be profuse and dangerous recourse must be had to a surgical operation between the attacks. This may be either gastro-enterostomy, pyloroplasty or partial gastrectomy.

GASTRITIS, ACUTE.

Patient should have absolute rest. Empty the stomach if necessary with warm water or ipecacuanha. Give ice to quench thirst. Apply mustard plaster or turpentine stupe to relieve pain. If constipation is present give a mercurial laxative. Rest

the stomach by giving very little food or drink. Give nutrient enemata to delicate subjects. After a day's fast allow milk in small quantities diluted with lime-water or Vichy water and peptonized. As beverages give champagne with soda water, barley water and light broths. There should be a gradual return to solid food.

To stop vomiting and retching, give:

R.	Acid. hydrocyan. dil.....	gtts. xxx
	Acid. carbolic.....	m. ii
	Bismuth. subnitr.....	3ii
	Morph. sulph.....	gr. ii
	Aquæ menth. pip.....	3iv
	Syr. acac.....	q. s. ad
		3ii

M. Sig. One teaspoonful every two or three hours if necessary.

Or:

R.	Bismuth. subnitrat.....	5ii
	Cerii oxalat.....	grs. xii
	Cocain. muriat.....	gr. i
	Sacchar. lact.....	grs. xii

M. et ft. chart. No. xii.

Sig. One every two hours if necessary.

GASTRITIS, CHRONIC.

Remove cause if possible. Patient must stop beer and whisky if addicted to these drinks, and should take regular meals, thoroughly masticating, and avoiding overeating. He should avoid taking a large quantity of fluids during meals. For proper diet see *Dyspepsia*.

There should be systematic lavage, or the stomach may be cleansed by the following draught:

R.	Sodii sulph.....	3x
	Sodii bicarb.....	3iv
	Sod. chlor.....	3ii

M. Sig. A teaspoonful in a glass of hot water before breakfast.

Change of air, sunshine, regular exercise, freedom from worry are often of the greatest benefit.

Bitter tonics are of great service to stimulate the gastric juice, e. g.:

R.	Tinct. nuc. vomic.....	5iv
	Tinct. quassiae.....	3ii
	Tinct. gentian.....	3ii
	Tinct. cardamom.....	3ii
	Elix. calisay.....q. s. ad	3iii

M. Sig. A teaspoonful in a wineglassful of water before each meal.

If an examination of the stomach contents after a test meal should show a deficiency of hydrochloric acid, give the following:

R.	Acid. hydrochlor. dil.....	5iv
	Pepsini C. P.....	5ii
	Aquæ.....	3iss
	Syr. aurant. cort.....q. s. ad	3iii

M. Sig. One teaspoonful in water 15 minutes after each meal.

If the patient is troubled with flatulency, give:

R.	Pulv. rhei.....	5i
	Sodii bicarb.....	3iss
	Magnes. carb. pond.....	3ii
	Pulv. zingiber.....	5ss

M. et ft. caps. No. xxiv.

Sig. One after each meal.

Or:

R.	Acid. sulph. aromat.....	5iv
	Tinct. nuc. vomic.....	5ii
	Tinct. cardamom.....	5iv
	Aq. menth. pip.....	5iv
	Aq. anisi.....q. s. ad	3iii

M. Sig. One teaspoonful after each meal.

If decomposition takes place in the stomach several hours after a meal give:

R.	Bismuth. subnitrat.....	5iv
	Saloli.....	5ii

M. et ft. chart. No. xxiv.

Sig. One to be taken two hours after each meal
in hot water.

If constipation is present give:

R. Extr. cascar. sagrad. fl. aromat..... ʒiii

Sig. One teaspoonful in hot water at bedtime and
on rising in the morning.

Carlsbad salts in teaspoonful doses in the
morning in very hot water will accomplish the same
purpose and also dissolve the mucus in the stomach.

If lavage of the stomach becomes necessary, teach
the patient to do it himself every morning with a
quart of very hot water containing a tablespoonful of
sodium bicarbonate.

GASTROENTERITIS, ACUTE. (SUMMER DIARRHŒA OF CHILDREN.)

Wash out the stomach and bowels with lukewarm
water. Carefully regulate the diet, especially in the
case of those that are bottle-fed. For the first 24
or 48 hours withhold all milk. Give barley water
or rice water in small quantities with a teaspoonful
of brandy to each eight ounces. Do not give too
much water as it will aggravate the vomiting.

The child should be kept in a well-ventilated cool
room. It should be continually in the fresh air day
and night. Children in tenement houses ought
to be removed into the country. Medicines should
be directed towards cleaning out the intestinal tract
and then checking the diarrhœa:

R. Hydrarg. chlor. mit..... gr. iss

Magnes. calcin ʒiss

Sacchar. lactis..... gr. xxxvi

M. et ft. chart. No. xviii.

Sig. One every three hours.

If the diarrhœa does not cease in 24 hours give the
following for a child 3 years old:

R. Bismuth. subnitrat..... ʒiv

Tinct. gambir. co..... ʒi

Tinct. opii camphor.....	3 <i>i</i>
Elix. digestiv. co. N. F.....q. s. ad	3 <i>iii</i>
M. Sig.	One teaspoonful every three hours.
This should be followed by intestinal antiseptics.	
R. Salol	grs. xviii
Zinci sulphocarbolat.....	gr. ii
Resorcin.....	grs. iii
M. et ft. chart. No. xii.	
Sig.	One every three hours.

GENERAL PARALYSIS (See Dementia Paralytica).

GESTATION, HYGIENE OF.

Avoid indigestible foods. Diet should be simple, especially in early months when morning nausea and vomiting are present. Avoid pressure on the growing uterus by the clothing; the garments should be loose and neither corsets nor garters should be worn. If the abdominal walls are relaxed a well-fitting abdominal supporter should be worn. Walking exercise in the open air should be taken, but horseback riding or similar jolting should be avoided, also long journeys on the train. Abundance of sleep should be taken and cold baths taken daily, but not so cold as to cause a shock. There should be frequent bathing of the external genitals. Sexual intercourse should be moderated, or better, abstained from altogether. During the last three months of gestation the nipples should be gently scrubbed daily with a soft brush, water, and Castile soap.

If the pelvis is small and previous labors have been difficult, it is frequently of advantage to restrict the mother's diet during the last three months of pregnancy, making labor easier by reducing the size and weight of the child, without in any way doing harm to the child.

GINGIVITIS (See Gums, Inflammation of).

GLANDERS. (FARCY, MALLEUS HUMIDUS.)

Prophylaxis. Those working about stables should be able to recognize glanders promptly or should employ a veterinary surgeon to do so. The disease is easily recognized by the mallein test. If a suspicious case in a stable gives a positive reaction all the other animals in the stable should be tested. Animals should be killed when the diagnosis of glanders is made and the stables, harness, curry combs and brushes should be thoroughly disinfected.

The discharges from a glanders patient should be disinfected and destroyed.

Treatment. Very little can be done for the acute form; symptoms must be treated as they arise, e. g., vomiting, diarrhœa, pain, rigors, etc. When abscesses form they must be freely opened and treated with hot antiseptic compresses. Attendants should be very careful not to inoculate themselves with the disease.

In the chronic form there is more hope for recovery. The seat of inoculation should be freely excised either by the knife or galvano-cautery.

Benzoate of soda in twenty grain doses has been highly recommended. The subcutaneous use of mallein in doses of $\frac{1}{20}$ to $\frac{1}{15}$ c.c. every two or three days for two months has recently been recommended. The lesion should be excised early and cauterized, then antiseptic dressings applied. All abscesses and ulcers should be treated surgically. Antiseptic sprays and gargles of dilute phenol or hydrogen dioxide should be employed in the nasal form of the infection.

GLAUCOMA.

This is one of the diseases of the eye which the general practitioner must be able at least to diagnose. Above all things the practitioner should never use atropin until he has eliminated glaucoma,

for he would be helping the patient along to the complete destruction of his eye.

In patients who are threatened with glaucoma, where the intra-ocular pressure is increased, and where there is neuralgia and headache, eserine will frequently, if used early, prevent an attack of inflammatory glaucoma. It should be prescribed thus:

R. Eserin. sulphat..... gr. ss
Aqua destillat..... 5iv

M. Sig. One drop three times a day in eye.

The only treatment for inflammatory glaucoma is iridectomy and the sooner it is performed the better. If it is done immediately the entire vision can be saved; if postponed, partial or complete loss of vision may result.

Prophylaxis. All errors of refraction or accommodation should be corrected.

GLEET.

If the disease has not lasted too long, the remedies ordinarily employed in acute gonorrhœa are found to be of benefit, especially where there is a history of a neglected attack.

The general health should be built up with tonics, all forms of fatigue, excessive sexual intercourse, smoking, overeating and drinking, should be avoided. Sea bathing and cold baths are very beneficial.

The local treatment of gleet is by far the most important. A sound passed into the bladder twice or three times a week for several weeks frequently cures the condition.

The urethroscope is of considerable service in finding the irritated areas and allowing us to make applications directly thereto.

The following injections may be of use:

1. Nitrate of silver..... 1 to 3 grs. to 1 oz.
2. Sulphate of zinc 3 grs. to 1 oz.
3. Permanganate of potassium.. 1 gr. to 1 oz.

4. Iodoform.....20 grs. in 1 oz. of oil
5. Acetate of lead.....10 grs. to 1 oz.
6. Sulphocarbolate of zinc.....2 grs. to 1 oz.
7. Sulphate of copper.....3 grs to 1 oz.
8. Creolin.....1 to 5 per cent.

Dilate pathological narrowings or divide them by urethrotomy, and remove all mechanical obstacles from the urethra. This should be done before beginning injection or other local treatment. The following injection may be used whether the urethritis is anterior or posterior:

R.	Phenolis.....	gtt. xv
	Zinci sulphat.....	gr. xv
	Aluminis.....	gr. xv
	Aqua.....q. s. ad	5 vi

M. Sig. Use as injection.

In anterior urethritis use the above prescription daily with an ordinary syringe. If the urethritis is posterior it should be used every third day, at first diluted with two-thirds water and the strength gradually increased. A long nozzle syringe should be used and ten to twenty drops injected.

GLENARD'S DISEASE (See Enteroptosis).

GLOSSITIS.

If due to syphilis give mercury internally (see **Syphilis**). Good results may be obtained by using Heath's method of pickling the tongue. He places $\frac{1}{4}$ grain of bichloride in one ounce of water, and the patient is instructed to hold this in his mouth for ten to fifteen minutes, three times a day.

If the disease is due to mercurial salivation or iodism these drugs must be temporarily stopped. If the tongue protrudes from the mouth and is accompanied by great swelling inside, so as to threaten suffocation, then it becomes necessary to make free longitudinal incisions to each side

of the middle line of the tongue from behind forwards. Hot antiseptic mouth washes should be used every hour, as follows:

1. Boric acid..... 4 5 to 1 pint
2. Chlorate of potash..... 3 3 to 1 pint
3. Liq. antiseptic (U. S. P.)..... 1 5 to 1 oz.
4. Phenol..... 1 3 to 1 oz.

Purgatives in the form of croton oil should be given (one or two drops on back of tongue), and the inhalation of steam is sometimes soothing.

GLOSSOLABIO LARYNGEAL PARALYSIS (See Paralysis, Bulbar).

GOITRE, EXOPHTHALMIC (Basedow's Disease, Graves' Disease).

Belladonna given in gradually increasing doses until the physiologic effect is produced, is one of the best remedies:

- R. Tinct. belladonn..... 3i
Sig. Five drops three times a day. Gradually increase the dose until the throat feels dry.

Arsenic in the form of Fowler's solution benefits some cases. It should be given in five drop doses in water three times a day after meals. Gradually increase until eight to ten drops three times a day are taken. Stop the arsenic for about one week in every four or five weeks.

Galvanism should be employed at the same time as the belladonna. The negative electrode is applied to the thyroid, and the positive to the back of the neck. The strength should be from 25 to 60 milliamperes.

When the patient's heart is very rapid and causing extreme nervousness, it is best to put the patient at complete rest in bed. At the same time give the bromides as:

- R. Strontii bromidi..... 3iv
Potass. bromidi..... 3ii
Aquaæ..... 3iss
Syr. simplic..... q. s. ad 3iii

M. Sig. One teaspoonful in water every four hours.

Thyroid extract should not be tried because it makes the patient much worse. Digitalis, veratrum viride, and aconite should be given very cautiously, if at all.

If rest in bed, belladonna and galvanism fail, then resort to surgical treatment.

Do not wait for the patient to become a physical wreck before resorting to surgical measures, because the death-rate in these cases is high. Remove the thyroid, leaving behind as much of the gland as normally exists in the adult. If too much is removed, myxœdema results, if too little we have a recurrence of the symptoms.

The serum treatment is still in the experimental stage, but from present appearances seems to be attended with encouraging results.

It is obtained from animals from which the thyroid has been removed.

The serum may be given in two forms, liquid and desiccated. The former is preferable. At least twenty to fifty drops should be given three times a day. The dose of the desiccated form is twenty to sixty grains daily. Both are administered by the mouth in capsules.

GOITRE, SIMPLE.

Internally we should give thyroid tablets, 5 grains each, four times a day after meals. Iodide of potassium can also be given and frequently acts as well as the thyroid extract:

R. Potass. iodid.....	3iv
Essen. pepsin.....	3iii

M. Sig. One teaspoonful after each meal in hot water. Increase to two teaspoonsfuls if reduction in size does not take place in two weeks.

Locally unguentum iodi may be rubbed into the gland once a day, or it may be painted with the tincture of iodine once a day.

If the goitre has become cystic the tumor will not disappear under any line of treatment, except surgical.

GONORRHœA, IN MALE.

Prophylaxis. The disease can be prevented by injecting a syringeful of a 10 per cent solution of protargol immediately after coition.

The patient should be warned of the danger of infecting his own eyes and those of others. The discharge should be received on a piece of absorbent gauze, and the hands thoroughly scrubbed and washed after each redressing. He should also be warned not to put a pledge of cotton under the foreskin, because the discharge backs up in the urethra, causing an extension of the disease upward. He should avoid exercise; if possible it is preferable to keep the patient in bed during the first week. Sexual intercourse should be forbidden.

Nearly every physician of experience has his own method of treating this disease, but no matter what line of treatment is employed, the disorder lasts on an average of about six weeks.

The treatment may be divided under three heads:

1. Diet.
2. Internal medication.
3. Local medication.

Diet. A liquid or semi-liquid diet should be insisted on, at least during the first week. It may consist of milk, buttermilk, weak coffee, oatmeal, milk-toast, broths, etc.

Prohibit the use of all alcoholic drinks, as malt, beer, whisky, gin, liqueurs and wines; also carbonated drinks, as vichy, soda water, lemonade, etc. Tea is also injurious, especially if strong. Condiments and seasoned foods, pickles, mustard, radishes, celery, tomatoes, asparagus, onions, cheese, salads, mayonnaise dressing, etc., are also very harmful. The last meal of the day should be the lightest, and should be eaten at least three hours before bedtime.

Prohibit all physical exertion, especially of a violent form. He must not ride on horseback,

dance, cycle, jump on or off street cars or other moving vehicles.

Smoking should be sparingly indulged in.

Internal medication. This consists of giving drugs that act as antiseptics and sedatives, as:

R. Misturæ copaibæ (N. F.) 3 vi

Sig. One teaspoonful every four hours. This mixture is also known as Lafayette's mixture. Its formula is:

R. Liq. potass. hydroxid gtt. xl

Copaibæ

Tinet. lavandulæ comp

Spirit. æth. nitros ää 3 iii

Syrupi 3 i

Mucilag. acacie q. s. ad 3 iii

M. "Shake" label.

Or:

R. Potass. citrat 3 iv

Potass. acetat 3 iv

Ext. buchu. fl 3 iv

Ext. tritici fl q. s. ad 3 iii

M. Sig. One teaspoonful in water every four hours.

Or:

R. Urotropini 3 ii

Ft. caps. No. xxiv.

Sig. One four times a day.

Or:

R. Saloli 5 ii

Ft. caps. No. xxiv.

Sig. One every four hours with water.

Or:

R. Ol. santali 5 ii

Ft. caps. No. xii.

Sig. One every four hours with hot water.

Or:

R. Copaiæ 5 i

Ol. cubeb 5 i

Ft. caps. No. xii.

Sig. One every four hours with hot water.

Or:

R.	Bals. copaibæ		
	Ol. santali	āā	3ss
	Liquor. potassæ.....		3vi
	Syr. aurant. cort.....		
	Aq. cinnamonii	q. s. ad	3iv
M.	Sig. One teaspoonful three or four times a day in a wineglassful of water.		

Local medication. This consists in the use of anti-septics and astringents injected into the urethral canal. Protargol, potassium permanganate, zinc sulphate and argyrol are the most useful for this purpose.

Before taking an injection the patient should be instructed to urinate. If urination is painful, the penis and testicles should be immersed in hot water until the act is over.

Protargol may be used from the beginning of the disease in weak solution (one-half to one per cent), and gradually increased in strength toward the end of the disease (one to two per cent).

R.	Protargol. sol. aq 1%.....	3iv
----	----------------------------	-----

Sig. Use a small syringeful three times a day.

This solution is best prescribed alone, and should be held in the urethra at least five to ten minutes.

Argyrol should be prescribed the same way but in stronger solution (2 to 5 per cent).

Permanganate of potassium is one of the best solutions that we possess. It should be injected warm:

R.	Potass. permangan.....	gr. 1 to 2
----	------------------------	------------

	Aq. destillat.....	3iv
--	--------------------	-----

M. Sig. Use a small syringeful three or four times a day.

Hydrogen peroxide and mercury are seldom used today.

The following is a good injection towards the end of the disease:

R	Zinc. sulphat.....	grs. xv
	Plumb. acetat.....	grs. xxx
	Tinct. opii.....	3iii
	Aquæ.....	q. s. ad

M. Sig. Use as injection two to three times daily.

Any of the following drugs can be used for injecting:

Bichloride of mercury..... $\frac{1}{2}$ gr. to 16 ozs.

Salicylate of mercury.....1 gr. to 5 ozs.

Sulphate of zinc1 to 3 grs. to 1 oz.

Acetate of zinc2 to 3 grs. to 1 oz.

Carbolic acid5 grs. to 1 oz.

Boric acid.....10 grs. to 1 oz.

Alum.....3 grs. to 1 oz.

Sulphate of zinc and acetate of lead..5 grs.
each to 1 oz.

Nitrate of silver1 gr. to 6 ozs.

Anti-gonococcus serum has not given any results in acute gonorrhœal processes.

For the treatment of complications see **Balanitis, Epididymitis, Prostatitis, Chordee, Cystitis, Gleet and Gonorrhœal Arthritis.**

GONORRHœA, IN FEMALE.

Prophylaxis. The disease may be prevented by using a very hot antiseptic douche immediately after intercourse, as,

R. Hydrarg. chlor. corros..... 5ss
Spirit. vini rect..... 3viii

M. Sig. One tablespoonful in four quarts of hot water for douche.

The treatment consists in destroying the gonococcus in the vagina with antiseptic flushings frequently repeated.

The vagina should be thoroughly washed with one or two quarts of warm water before giving the antiseptic douche.

The antiseptics usually employed are permanganate of potassium, carbolic acid, bichloride of mercury, lysol, creolin and boric acid.

Permanganate of potassium should be used in the strength of 5 to 10 grains to the pint of hot water;

bichloride of mercury in the proportion of 1 to 4,000; carbolic acid, lysol and creolin, 2 drams to one quart; boric acid one tablespoonful to the quart.

The following powder is of benefit when the acute stage has passed:

R.	Acid. tannic.....	ʒiss
	Pulv. alum	ʒi
	Acid. boric.....	ʒiss

M. Sig. One tablespoonful in one quart of hot water three times a day.

When the discharge begins to cease, sulphate of zinc, one dram to the pint, becomes very useful.

If considerable ulceration of cervix has resulted, it is necessary to tampon with:

R.	Ichthyol.....	ʒiii
	Glycerin.....	ʒxiii

M. Sig. Use twice a day after an antiseptic douche.

If complications arise treat according to methods described under their respective subjects, as **Cystitis**, **Endometritis**, **Salpingitis**, etc.

GONORRHŒAL ARTHRITIS.

Rest in bed, immobilization of the limb by splints or plaster for a short period. Beware of ankylosis.

Counter-irritation may be procured by tincture of iodine, blisters or cautery. If effusion persists, the fluid in the joint should be aspirated under the most rigid antiseptic precautions. Bier's method of passive congestion is often of great service.

Credé's silver ointment thoroughly rubbed into the affected joint occasionally gives prompt relief:

R.	Unguent. Credé.....	ʒi
----	---------------------	----

Sig. Rub half a drachm thoroughly on the joint three times a day.

At the same time, constitutional treatment by iron, arsenic, quinine, and strychnine should not be forgotten.

Treat also the local gonorrhœa if present.

Sufficient clinical reports are now at hand to estimate the value of anti-gonococcus serum in the treatment of the various forms of gonorrhœa and its complications.

In some cases of gonorrhœal arthritis it acts as a specific, sometimes within a few hours after its administration, but it seldom fails to benefit, no matter how severe the case.

It should be given hypodermically in the dose of 2 c. c. every second, third or fourth day. In very chronic cases it should be continued for a long period of time. It should be injected into the subcutaneous tissue under the strictest antiseptic precautions.

The serum is put on the market in the form of 2 c. c. bulbs.

It has also been found worthy of a trial in the following complications of gonorrhœa: cystitis, prostatitis, epididymitis and salpingitis.

GOUT.

Treatment of acute attack. The pain is best relieved by ten to twenty drops of vinum colchici well diluted and given every two hours till the symptoms subside, when it may be given in smaller quantities. Empty the bowels by a full dose of calomel followed by a saline such as the liquid citrate of magnesia. The patient should abstain from food for 24 hours and should be encouraged to drink plenty of water.

Next to colchicum, salicylate of sodium or of lithium will be found useful to hasten the elimination of the purin bodies which cause the attack. Alkalies are also valuable adjuncts.

The following prescription will be found of service:

R.	Sodii salicylat.....	5iv
	Sodii nitrat.....	5iiss
	Potass. iodid.....	5iiss
	Vin. colchic. radie.....	5iss
	Aq. gaultheriaeq. s. ad	5vi

M. Sig. One tablespoonful in half a glass of water twice daily for forty days.

Or:

R. Extract. colchici cormi.....gr. xxiv
Phenylis salicylatis.....3*i*

M. ft. pil. No. xxiv.

Sig. One pill every four hours.

Local treatment. A soothing application should be made to the affected joint, e. g.:

R. Pulv. lini.....3*iv*
Sodii bicarb.....3*iv*
Aquæ ferventis.....q. s.

M. Ft. cataplasma.

Sig. Spread on cheesecloth and apply to the painful part.

When this application has been made the affected part is elevated and wrapped thickly in flannel or cotton wool to protect it from cold and to promote local sweating.

GOUT, CHRONIC.

Hygienic treatment. The patient should be moderate in the use of animal food and liberal in vegetables. He should not eat more than is absolutely necessary to satisfy his hunger. He should take plenty of fluids and every night and morning he should slowly sip a quantity of hot water. He should take regular exercise and should walk not less than three to four miles daily. Warm baths, tepid or cold sponging, skin friction, massage and Turkish baths are of great benefit. He should be warmly clad, avoid fatigue, keep regular hours, and maintain the free action of his skin, kidneys and bowels. He should go early to bed and rise early, and should not take more than eight hours sleep, nor less than seven.

GOUT, DIET IN.

The following should be avoided: Fats, rich foods, sauces, rich gravies, made dishes, pastry,

jellies, sugar, meat essences, strong soups, crabs, oysters, salmon, eel, lobster, duck, goose, hare, mushrooms, truffles, pickles, spices, ale, porter, stout, port, champagne, Burgundy, sherry, Madeira, liqueurs.

The following should be taken in moderation: Bread, biscuits, butter, cheese, potatoes, asparagus, tomatoes, beans, peas, lentils, eggs, whisky and brandy (not to exceed two ounces daily), unsweetened gin, claret, hock (freely diluted).

The following may be allowed: Fresh fruits and vegetables, fish, white meats, vegetable soups, toast, salads, celery, milk, skimmed and diluted with Vichy, Apollinaris or Seltzer, lime juice diluted, weak tea freshly made, cocoa.

GRAVEL (See Renal Calculus).

GRAVES' DISEASE (See Goitre).

GREEN SICKNESS (See Chlorosis).

GRIPPE. (INFLUENZA.)

During epidemics the feet should be kept dry. The nasal secretions and sputum of those suffering from the disease should be destroyed, and if possible the patient should be isolated.

Treatment. The use of drugs has been overdone in this disease.

At the beginning of the attack give one grain of calomel, and $\frac{1}{4}$ gr. every half hour until three grains are taken.

For the headache, pain and mental depression give:

R.	Antipyrini.....	3i
	Salol.....	3i
	Kryofini.....	3ss

M. et ft. caps. No. xii.

Sig. One every three hours.

If laryngo-bronchial irritation is present give:

R.	Codein. phosph.....	gr. iv
	Ammon. chlorid.....	3ss
	Syr. tolu.....	3iss
	Syr. prun. virginian.....	q. s. ad 3iii

M. Sig. One teaspoonful every three hours.

Diaphoretics are of considerable benefit:

R. Fluidextr. gelsemii..... 3iv

Sig. One or two drops every half hour until free perspiration takes place.

Locally. Warm poultices composed of equal parts of flaxseed meal and mustard, should be applied to the chest when there is much bronchial irritation.

For the coryza use the following with an atomizer:

R. Sod. bicarb..... grs. xv

Sod. chlorid..... grs. x

Glycerini..... 3iv

Aquæ..... q. s. ad. 3iii

M. Sig. Use with an atomizer every three hours.

Plenty of water should be consumed, at least a quart daily, to wash out the toxic substances from the blood.

The diet should be liquid as long as the temperature is high; thereafter a light diet of milk, soups, rice, eggs, etc., may be given.

During convalescence, iron tonics are indicated, as Blaud's pills, each 5 grains, one after each meal, or:

R. Liq. ferri peptonat. N. F..... 3vi

Sig. Two teaspoonfuls four times a day.

Or:

R. Strych. sulphat..... gr. $\frac{2}{3}$

Zinci phosphidi..... gr. iss

Quin. sulph..... grs. xii

Ac. arsenios..... gr. $\frac{1}{4}$

M. et ft. caps. No. xxiv.

Sig. One after each meal.

GUINEA-WORM DISEASE.

Prophylaxis. Thoroughly filter and boil all drinking water in the tropics. Surface water is particularly suspicious.

Treatment. Frequent hot fomentations to encourage worms to discharge embryos. When worm is empty and begins to emerge spontaneously, its exit may be hastened by seizing the end of the

worm firmly between two sterile toothpicks, between which it is gradually rolled up, great care being taken to avoid breaking the slender body. Dress with boric lotion and lint till the wound heals.

GUMMA OF BRAIN (See Brain, Gumma of).

GUMS, INFLAMMATION OF. (GINGIVITIS.)

In the gingivitis of pregnancy the teeth should receive the attention of a dentist. Precipitated chalk pressed between the teeth at bedtime is of some service. Milk of magnesia may be used as a mouth wash during the day.

If the gum over a wisdom tooth which is about to make its appearance be greatly inflamed or ulcerated it should be incised and the borders of the incision should be cauterized so that immediate union may not take place. If abscesses form in the gum, tongue, cheek or cervical glands, they should be opened.

In infants local prophylaxis consists in gentle friction of the inflamed gums with the ball of the finger, or the smooth handle of a silver spoon, and in providing the baby with a piece of hard rubber on which to chew. The gums may be painted with the following:

R. Tinct. benzoini co 3*ii*
Liquoris antiseptici (N. F).....q. s. ad 3*i*

M Sig. Apply to the gums with a camel's hair brush three times a day.

HÆMATEMESIS.

For this condition see Cancer of Stomach, Gastric Ulcer, and Liver, Cirrhosis of.

HÆMATURIA.

Treat the cause, e. g., purpura and other blood diseases, gonorrhœa, calculus, new growth, tubercle of kidney or bladder, nephritis, prostatitis, etc.

Hæmorrhages arising from the urethra usually precede the act of urination, while bleedings from the bladder either follow the passage of clear urine

or else urine which is slightly blood-tinged at the beginning of urination, becoming progressively darker toward the end of micturition. In bleedings which arise in the kidneys, there is no difference in color of the urine throughout the duration of the micturition and except a clot be passed blood and urine as voided are equally mixed together.

Treatment. Rest in bed. The application of dry cold to the loins and the hypodermic injection of ergotin are of service. Internally drugs may be given which increase the coagulability of the blood such as calcium lactate or calcium chloride, in doses of 20 grs. three times a day:

R. Calcii chloridi.....	3 <i>i</i>
Aquæ.....	3 <i>iii</i>

M. Sig. One teaspoonful in water three times a day.

Gelatin may also be given for the same purpose either hypodermically or by the mouth.

Hæmostatics such as the extract of hamamelis or gallic acid may also be used. In hæmorrhage from the kidney or prostate give:

R. Ac. gallic.....	3 <i>ii</i>
Extracti ergotæ.....	gr. xxiv

M. et fiat in capsulas No. xxiv.

Sig. One capsule every four hours.

In bleeding from the bladder or urethra give:

R. Fluidextracti hamamelidis.....	3 <i>i</i>
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Sig. Twenty to thirty drops in water every two hours.

In the hæmaturia due to purpura the following will be found useful:

R. Acidi gallici.....	3 <i>ss</i>
Acid. sulph. dil.....	
Tinct. opii deodorat.....	āā 5 <i>i</i>
Infus. digitalis.....	3 <i>iv</i>

M. Sig. One tablespoonful every four hours.

HÆMOGLOBINURIA, PAROXYSMAL.

Prophylaxis. The patient should be warmly clad, and should not be exposed to cold. Outdoor occupation should be exchanged for indoor work. He should live in an equable and warm climate.

Treatment. When an attack begins the patient should be put to bed and kept warm. After the attack is over the patient should be placed on iron, or iron and arsenic. Arsenic should be given for a long time to increase the resisting power of the red cells.

HÆMOPHILIA.

Surgical operations should not be done on those affected. Even vaccination should be done with care. The authors have seen a case where a pint of blood was lost from making a small needle-point opening in the lobule of the ear, for a blood examination. The disease being transmitted through the females, marriage should be prohibited.

Internally give calcium lactate or calcium chloride in 20 to 30 gr. doses three times a day either by mouth or rectum. If given by the mouth it may be given in powder form or in the following mixture:

R.	Calcii chloridi	3iiss
	Aquæ.....	3i
	Syr. aurantii cortic.....q. s. ad	3ii

M. Sig. One teaspoonful three times a day in water.

Gelatin should be eaten in large quantities. If the hæmorrhage is concealed, give the following:

R.	Acid. sulph. aromat.....	3iv
	Acidi gallici.....	3ii
	Tinet. cinnamon.....	3i
	Tinet. opii.....	3iv
	Fluidextr. ergotæ.....q. s. ad	3iii

M. Sig. One teaspoonful in water every three hours.

If the hæmorrhage is accessible, apply a strong adrenalin chloride solution (1 to 1,000) with a firm packing of gauze, not cotton.

Transfusion of blood is of no benefit.

Recently it has been shown that a hæmophilic haemorrhage can frequently be controlled by the injection of 20 c. c. of fresh ox serum. Finding this to be of benefit, anti-diphtheritic serum was tried in from 10 to 20 c. c. doses, repeated in two days, and found to be of equal benefit. This should be tried.

HÆMOPTYSIS.

Prophylaxis. The patient should avoid physical effort, mental excitement and any other causes of active pulmonary congestion. If the hæmoptysis is a symptom of pulmonary tuberculosis, for treatment see *Tuberculosis*.

Treatment. The patient should be kept at absolute rest in a semi-recumbent position. He should use his voice as little as possible. The sick-room should be kept cool and well-ventilated and the bed-coverings should lie lightly on the patient's chest. The patient should cough as little as possible. Place an ice-bag over the seat of the suspected haemorrhage and give the patient ice to suck and order hot foot baths. Ligation of the extremities is of benefit by retaining the venous current in the limbs while the arterial circulation is not arrested; in this way the intra-pulmonary pressure is lowered.

To increase the coagulability of the blood and relieve hæmoptysis, calcium chloride or lactate may be given in 20 gr. doses three times a day. Ordinary gelatin which is found in every grocery may be given for its haemostatic properties. It may be given dissolved in water, in doses of two ounces every two hours.

Opium and morphine are favorite and very effective remedies. Very frequently all that is necessary to stop the haemorrhage is a hypodermic injection of $\frac{1}{4}$ gr. of morphine sulphate. If opium is used it may be combined with lead:

- R. Pulv. opii..... grs. xii
 Plumb. acetat..... grs. xxxvi
 M. et ft. caps. No. xii.
 Sig. One every three hours.

HÆMORRHAGE, INTESTINAL.

This is usually first discovered by the appearance of blood in the faeces; the darker the blood the further from the anus does it come. It may be due to duodenal ulcer, typhoid ulcer, cirrhosis of liver, haemorrhoids, etc.

The first indication in treatment is absolute rest in bed. An ice-bag should be placed on the abdomen, and all food should be withheld from the stomach.

The drugs which are of most use are ergot, opium, morphine, lead and adrenalin. Give the following capsule:

- R. Pulv. opii grs. xii
 Plumb. acetat grs. xxiv
 Extr. ergotæ grs. vi
 M. et ft. caps. No. xii.
 Sig. One every three hours.

Adrenalin chloride in 20 drop doses every three hours should also be tried.

In severe typhoid haemorrhages, morphine sulphate, $\frac{1}{4}$ gr., hypodermically every half hour for three doses is a very important measure. Repeat in two or three hours if necessary.

During the course of a haemorrhage do not give the patient any food, water, bath or enema, but keep him quiet, both mentally and physically.

After the bleeding has stopped, stimulants such as brandy, strychnine or digitalis may be given.

Gelatin (a 2% solution) has been used by injection with good results.

When the haemorrhage is due to haemorrhoids treat them as directed under that heading.

HÆMORRHAGE, POST PARTUM.

The obstetrical patient should not be left by the attendant if the pulse is 120 or more, because this is always a premonitory sign of hæmorrhage.

Try Crede's method first. It consists in grasping the fundus of the uterus through the abdomen, fingers behind and thumb in front, and by firm pressure induce contraction to force out the accumulating clots.

If this does not stop it, with the hand introduced into the uterus empty all the clots out of it, then firmly grasp the fundus of the uterus through the abdominal wall and massage it. Give the patient a teaspoonful of fluidextract of ergot hypodermically.

If the hæmorrhage does not cease on emptying the uterus, give a very hot intra-uterine douche, containing a cupful of vinegar, and pack the interior of the uterus firmly with gauze which should be left in at least six hours.

If much blood has been lost elevate the foot of the bed, bandage the limbs, and give an intravenous saline injection, or resort to Hypodermoclysis, which see.

After the hæmorrhage has ceased give a little hot coffee, beef tea, or malted milk. Keep up the fluid-extract of ergot for twenty-four hours in the dose of half a teaspoonful every four hours.

Sometimes the hæmorrhage comes from a torn vagina or a torn cervical artery. In these cases pack with gauze or sew up the rents.

HÆMORRHAGE, UTERINE.

If due to abortion make use of the methods described under that heading.

If due to carcinoma, remove the uterus as soon as the diagnosis is made. If due to an inoperable advanced case, use the cautery or tampon with gauze containing adrenalin chloride solution (1 to 2,000).

If due to fibroids within the uterus, give ergot,

and tampon with gauze twice a day. The patient should be at absolute rest in bed. Prescribe the following:

R.	Fluidextr. ergotæ.....	5 <i>i</i>
	Acid. sulphuric. aromat.....	5 <i>iv</i>
	Tinct. cinnamon.....q. s. ad.	5 <i>iii</i>
M.	Sig. One teaspoonful in water every three hours.	

Or:

R.	Extr. ergotæ.....	grs. xii
	Plumbi acetat.....	5 <i>iss</i>
	Tannin.....	5 <i>iss</i>
	Pulv. opii.....	grs. xxiv

M. et ft. caps. No. xxiv.

Sig. One every three hours.

The above treatment will usually stop the haemorrhage, but should it continue then surgical intervention becomes necessary.

If the uterine haemorrhage is due to a miscarriage where the uterus has not properly emptied itself, dilate and curette and swab the cavity with tincture of iodine or carbolic acid. Follow this with two hot daily douches containing a tablespoonful of common salt or boric acid.

If the uterine haemorrhage occurs in young girls who are first beginning to menstruate or who have already menstruated several times irregularly, it is necessary to prevent overstudy or overwork, the bowels must be kept open and iron must be given if anaemia is present. In many obstinate cases it becomes necessary to keep the patient in bed, to tampon, to give calcium chloride in 10 gr. doses, and to administer gelatin. The following prescriptions may be given for this condition in young girls: For the anaemia give:

R.	Ferr. carb. mass.....	5 <i>ii</i>
	Acid. arsenios.....	gr. $\frac{1}{4}$
	Mangan. dioxid.....	grs. xii
	Zinci phosphidi.....	grs. iss

M. et ft. caps. No. xxiv.

Sig. One four times a day.

For the bowels:

R.	Extr. cascara sagrada.....	3 <i>i</i>
	Extr. nuc. vomic.....	grs. viii
	Extr. physostigmin.....	grs. ii
	Extr. hyoscyam.....	grs. v
M.	et ft. pil. No. xxx.	
Sig.	One night and morning.	
	For the excessive haemorrhage:	
R.	Calcii chloridi.....	3 <i>iv</i>
	Fluidextr. ergotæ.....	3 <i>iv</i>
	Aquæ.....	3 <i>i</i>
	Tinct. cinnamon. co.....	q. s. ad. 3 <i>iii</i>
M.	Sig. One teaspoonful every three hours.	

HAY FEVER.

Prophylaxis. The patient should avoid going into the country at the time of the ripening of the pollen and seed of plants which cause the irritation in his case, usually the ragweed. If he is able to afford the change of climate, he should go to the mountains, until the first frost appears.

Treatment. So far there is no curative treatment for this disease but relief can always be obtained. In children the disease may be due to irritation from polypi, adenoids, etc. If these are removed the relief of the hay fever is sometimes immediate.

Belladonna is of great service. It should be started at least two weeks before the expected attack. Give the tincture in five-drop doses three times a day. When the attack begins gradually increase the dose until the physiological limit is reached.

During the attack the patient can be made comfortable by using a nasal atomizer containing adrenalin solution (1-2000). The nose should be sprayed five or six times a day.

Dunbar's pollantin has cured a few cases, benefited some, and has not had any influence whatever on many. So far the results of treatment with it are no better than other lines of treatment.

When the nasal symptoms are very severe, a 2% cocaine spray may be used, but patients very readily acquire the cocaine habit in this way.

When the patient is kept awake at night give:

R.	Sod. bromid.....	ʒii
	Potass. bromid.....	ʒii
	Chloral hydrat.....	ʒii
	Aquaæ.....	ʒiss
	Syr. simplic..... q. s. ad.	ʒii

M. Sig. One teaspoonful at bedtime in water.

For the conjunctivitis, give the following:

R.	Zinci sulphat.....	gr. ii
	Aq. camphorat.	ʒi
	Sat. sol. ac. boric..... q. s. ad.	ʒi

M. Sig. Instil a few drops into the eye three times a day.

The following may be used as a spray to the nose:

R.	Cocain. hydrochlor.....	grs. x
	Ac. boric.....	grs. x
	Sodii borat.....	grs. xx
	Supra-renalin (1 to 1,000).....	ʒiv
	Glycerini.....	ʒii
	Aquaæ camphorat..... q. s. ad.	ʒiv

M. Sig. Use as spray to the nose four or five times a day or oftener, if necessary.

HEADACHE.

Search for cause of chronic or recurring headache: astigmatism, or some error in refraction of the eyes, nasal obstruction, decayed teeth, indigestion, brain tumor, deficient coagulability of the blood, faecal accumulation, displaced uterus, laceration of cervix, cerebral congestion, meningitis, malaria, pneumonia, typhoid and other infectious diseases, syphilis, etc.

Headaches in school-children are in the great majority of cases due to error of refraction.

Frequently it is necessary to prescribe for the headache in addition to the other appropriate treatment.

The following answers the purpose:

R.	Sodii bromid.....	3ii
	Phenacetin.....	3i
	Kryofini.....	3i
	Caffein. citrat.....	grs. xii

M. et ft. chart. No. xii.

Sig. One every three hours if necessary.

Wherever there is high fever and the patient is very weak, headaches should be controlled by the ice-bag to head and the above prescription given only where the patient's suffering is more harmful than administration of the coal-tar products would be.

Headaches of nasal origin can only be relieved by appropriate treatment applied to the nose; if due to obstruction by a polypus or adenoids remove them. If due to a simple catarrhal condition use:

R.	Liq. alkalin. antisept. (N. F.).....	3vi
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Sig. Spray into nose and throat with atomizer three times a day.

If the headache is of a dull character and on the top of the head it is possibly of renal or uterine origin; in which case examine the urine and prescribe according to the diagnosis made.

If of uterine origin, correct displacements by pessary or other appropriate methods.

If the headache is of nervous origin remove the patient from excitement and worry and give the following prescription:

R.	Sodii bromidi.....	3iv
	Tinet. valerian.....	3iii
	Aquæ.....	3iss
	Syr. limonis.....	q. s. ad 3iii

M. Sig. One teaspoonful in water three times a day after meals.

Tonics are also frequently indicated, especially iron, as in the following:

R.	Ferri reduct	grs. xlviii
	Extr. gentian	grs. viii
	Extr. sumbul.....	grs. xxiv

M. et ft. caps. No. xxiv.

Sig. One after each meal.

If due to errors of diet, correct them. See Dyspepsia, Constipation, etc.

HEARTBURN (PYROSIS, WATER-BRASH).

The patient should be careful about his diet, well masticating his food. He should take plenty of exercise and a cold bath every morning. The following articles of diet should be avoided: Cabbage, nuts, fatty food, pastries, salt meats, sharp condiments, coffee, beer or whisky. The following may be allowed: Weak tea, milk, cocoa, dry toast and butter, roast meat, chicken, eggs, soup with egg, omelet, mashed potatoes, asparagus tips, Vichy, Apollinaris or hock.

If fermentation is present, lavage of the stomach may be necessary. The alkaline carbonates are of service. Sodium carbonate or magnesia usta in hot water, taken half an hour before the pain is expected, often prevents attacks.

The heartburn of pregnancy should be treated in the same way.

A soda mint powder after meals containing the following, is often useful in checking the attack:

R. Sod. bicarb..... 5iss

Potass. bicarb..... grs. iv

Ol menth. pip..... gtts. ii

M. et ft. chart. No. xii.

Sig. One after each meal.

HEART, DILATATION OF.

Rest in bed and digitalis are the important indications. The patient can only rest in a semi-recumbent position, and should have a suitable back-rest and pillows. The dyspncea compels him to sit up. The dyspncea can be relieved by codeine or morphine (gr. $\frac{1}{8}$) hypodermically. Apply dry cups to the chest occasionally. Many obtain considerable relief from inhalation of oxygen. The kidneys

should be kept active by diuretin (gr. xv) three times daily in water, or citrate of caffeine (gr. ii) three times a day.

Strychnine is the most valuable remedy in doses of $\frac{1}{50}$ to $\frac{1}{30}$ gr. every three hours. Tincture of digitalis m. xx to m. xxx every four hours may be used.

Attacks of faintness should be met by such remedies as aromatic spirits of ammonia, strychnine and whisky:

R.	Spt. ammon. aromat.....	3 vi
	Strych sulphat.....	gr. 2/3
	Brandy.....	q. s. ad. 3 iii

M. Sig. One teaspoonful three times a day.

Alcohol is of little use; it should be kept for emergencies.

HEART, FATTY.

Treatment is along two lines: 1st. Obesity with anaemia. 2d. Obesity with plethora.

Schott's Treatment is of benefit in the former and Oertel's in the latter (see under these headings).

Alcohol should be entirely prohibited. Saline cathartics are of benefit, also potassium iodide for the accompanying sclerosis. Hard work, mental strain and excitement should be avoided. If diminution in the weight of the patient is attempted do not reduce him more than two or three pounds a week. Exercise is the best way to reduce the weight; walking should be done from one to four hours after meals.

Cardiac tonics such as strychnine, digitalis, strophanthus, camphor, ammonia and nitroglycerin are of service. Cathartics of the type of Pluto water, Carlsbad, Hunyadi, and Apenta should be used to keep the bowels free. Occasionally a purgative should be given such as compound infusion of senna, four ounces to be taken at one dose at bedtime.

HEMORRHIDS. (PILES.)

Prophylaxis. Hard seats should be used instead of soft ones, for the latter favor the production of piles by pressing on the arteries as they emerge

from the pelvis and so tend to drive the blood into the interior. A daily evacuation of the bowels should be obtained if possible without medicine. Highly seasoned dishes, gravies, salads, old cheese, alcohol and tobacco should be forbidden. A cold sitz bath should be taken every morning after stool, or after each passage apply freely cold or ice water.

The treatment consists of astringent ointments and suppositories.

The following ointment is useful in bleeding piles:

R.	Gallæ (pulv).....	grs. xx
	Opii pulv.....	grs. x
	Ungt. plumb. subacetat.....	grs. xl
	Ungt. simplic.....	3i

M. et ft. unguentum.

Sig. Apply night and morning on lint after bathing parts with cold water.

The following suppositories may be prescribed for internal piles:

R.	Iodoformi.....	3i
	Balsam. peruv.....	5ii
	Magnes. oxidi.....	3i
	Cetacei.....	3ss
	Ol. theobrom.....	q. s.

M. et ft. suppositoria No. xii.

Sig. Insert one twice daily into rectum.

Or:

R.	Extr. opii.....	grs. ii
	Extr. belladonn.....	grs. ii
	Ac. tannic.....	5ss
	Ol. theobrom.....	q. s.

M. et ft. suppositor. No. x.

Sig. One at bedtime.

If much itching is present give a 1% carbolic salve, to be used twice daily.

If the bowels refuse to act alone give:

R.	Fluidextr. cascar. sagrad. aromat....	3ii
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Sig. Fifteen drops in warm water before each meal. Increase or decrease the quantity if necessary.

If local measures fail, surgical treatment is indicated.

HERPES FEBRILIS or LABIALIS.

Occurs during infectious diseases as pneumonia, and from the effects of a common cold. Little treatment is necessary because the sores are not very painful. An ointment like unguentum aquæ rosæ or unguentum resorcin co. N. F. will answer the purpose.

HERPES PREPUTIALIS.

Arsenic in the form of Fowler's solution, 5 drops in water three times a day usually cures this disorder.

HERPES ZOSTER. (SHINGLES.)

The treatment is directed first towards the relief of the pain, second to prevent suppuration and scarring. At the beginning give an active purge. For the fever and pain give:

R.	Quinin sulphat.....	grs. xxiv
	Phenacetin.....	grs. xlviii
	Sodii salicylat.....	3 iss

M. et ft. caps. No. xii.

Sig. One three times a day with hot water.

If the pain is severe give larger doses of phenacetin. Locally, apply a saturated solution of menthol in olive oil four or five times a day.

In order to avoid pitting, care should be taken to prevent suppuration and rupture of the vesicles. The vesicles should be painted over with flexible collodion, or dusted with a drying powder such as:

R.	Powdered talc.....	87 parts
	Powdered starch.....	10 parts
	Acid salicyl.....	3 parts

M. Sig. Use three or four times a day.

The general system should be toned up with quinine, arsenic, nux vomica, etc.

HICCOUGH. (HICCUP, SINGULTUS).

Often a temporary state after eating or exposure to cold, resulting from clonic spasm of diaphragm. In mild cases it can usually be arrested by a deep

inspiration, holding the breath as long as possible. Sipping cold water, sneezing, drinking hot water, or binding a firm belt around the epigastrium are also of service.

Sometimes hiccough is more serious, occurring in extreme exhaustion following acute or chronic diseases. It may also be reflex as from overloaded stomach, or from stomachic, hepatic, intestinal, or peritoneal disease. In these cases remove cause if possible. Correct the diet and give the meals dry. General tonics, rest, and massage are also of service. Pressure over the phrenics in the neck, pressure or ethyl chloride spray on the epigastrium, galvanism and faradism (one pole over each phrenic) may also be tried. Inhalation of amyl nitrite, and hypodermic injection of morphine and pilocarpine have also been found of service. Lastly, the administration of atropine, hyoscine, nitrites, sodium bicarbonate or peppermint is of some value.

HIVES. (URTICARIA, NETTLERASH.)

Regulate the diet. Allay the itching by linimentum chloroformi, or a sponge bath with sodium bicarbonate, common salt, borax, ammonium chloride, or vinegar:

R. Sod. bicarb..... ʒiv

Sig. One tablespoonful to a cupful of water, and apply with a sponge.

Or:

R. Chloroformi..... ʒiv

Olei gossypii sem..... ʒvi

Sig. Shake well and apply freely to the body.

For the constipation, saline laxatives should be given such as magnesium citrate or sulphate. Treat digestive disturbances with bismuth, or calomel and sodium bicarbonate.

The following special drugs are also used: Sodium salicylate, quinine, tincture of belladonna, strychnine, and potassium bromide.

In very severe cases the following should be painted with a camel's hair pencil on the parts which itch most:

R.	Menthol.....	3ss
	Spts. vin. rect.....	3iss
	Ether.....	3iss

M. Sig. Apply two or three times a day with camel's hair pencil.

Tinct. belladonna given internally is perhaps the best drug to use:

R.	Tinct. belladonn.....	3ss
----	-----------------------	-----

Sig. Five drops three times a day.

The patient should be instructed not to take violent exercise to make him perspire, because it is always followed by an outbreak of new wheals. Neither should the patient cover too warmly at night.

Frequently an attack is brought on by eating strawberries, canned goods, as lobster, peas, etc.; these should be avoided. Alcohol should also be avoided.

HOARSENESS.

Look for and treat the cause if found. Hoarseness is generally due to accumulation of mucus on the vocal cords, or by roughness, swelling or relaxation of the cords from laryngeal disease.

The patient should avoid tobacco and alcohol. To give rest to his vocal cords he should keep perfectly silent, although when the hoarseness is due to misuse of the voice, a course of elocution or of vocal exercises may be of benefit. If any obstruction be found in the upper air passages, nose or pharynx, remove it. A change of climate is often beneficial.

Of internal drugs, iodide of potassium and chloride of ammonium are of some service, e. g.:

R.	Ammon. chlorid.....	grs. xx
	Tinct. belladonn.....	m. xv
	Fluidextr. liquorice.....	5ii
	Glycerin.....	3iii
	Aquæ.....	q. s. ad. 3ii

M. Sig. One teaspoonful every two or three hours.

Local applications are preferable to sprays for the desired points can be touched exactly. The parts should be previously prepared by spraying them with a mild solution of cocaine (3 to 5%). Nitrate of silver (10 grs. to 1 oz.) or glycerite of tannin are of much benefit.

If singers' nodes (trachoma of the vocal cords) are present they should be removed with a fine delicate forceps or with the galvano-cautery or an application of chromic acid.

HODGKIN'S DISEASE (See Lymphaderoma).

HOOKWORM DISEASE (Uncinariasis).

Thymol, if properly administered, is a certain specific for this disease.

The patient should begin treatment by abstaining from all food for at least 18 hours previous to the administration of the thymol.

To avoid toxic effects from the thymol the patient should not eat fats in any form during the treatment, as cream, milk, bacon, butter, etc. He must also avoid whisky, beer and wines, as they also dissolve thymol.

The evening before giving the thymol a good-sized dose of epsom salts should be given.

The thymol ought to be given in two doses, one hour apart. It is best given in cachets mixed with sugar of milk. For an adult give:

R. Thymol.....grs. ix

Sacch. lact.....grs. ix

M. et ft. cach. No. ii.

Sig. Give one hour apart.

Follow this in 3 or 4 hours with another dose of epsom salts, or give sooner if symptoms of thymol absorption appear. The patient must lie on the right side after the administration of the thymol.

The State Board of Health of Florida has given out the following table for the dosage of thymol:

Under 5 years of age.....	up to 8 grs.
5 to 10 years of age.....	8 to 15 grs.
10 to 15 years of age.....	15 to 30 grs.
15 to 20 years of age.....	30 to 45 grs.
20 to 60 years of age.....	45 to 60 grs.
Over 60 years of age.....	45 grs.

The general condition of the patient should also guide us in the dosage of the drug.

The treatment ought to be repeated at intervals of one, two or three weeks, until the fæces are free from worms.

The day after the thymol treatment the patient should have plenty of food, fresh air and sunshine.

Iron should be administered to restore the blood:

R.	Mass. Blaud.....	5 ii
	Mangan. dioxid.....	grs. xii
	Strych. sulph.....	gr. ss
	Ext. gentian.....	grs. vi
	Ac. arsenios.....	gr. $\frac{1}{4}$
	M. et ft. caps. No. xxiv.	
	Sig. One after each meal.	

Or:

R.	Syr. ferri iodid.....	3 i
	Sig. 15 to 30 drops three times a day in water through a glass tube.	

Or:

R.	Liq. ferri et ammon. acetat.....	5 viii
	Sig. One tablespoonful three times a day.	

HORDEOLUM. (STYLE.)

When it is the result of constitutional debility, nourishing diet, fresh air and tonics are indicated.

Look also for a local exciting cause, e. g., conjunctivitis or error of refraction and treat it if found.

Spirits of camphor often abort the inflammatory process, while the application of hot water relieves the pain and hastens the termination of inflammation. Warm poultices should not be used to hasten suppuration because of their irritating effect on the

conjunctiva. The knife is very seldom necessary for the evacuation of the pus. Calcium sulphide in $\frac{1}{4}$ grain doses every 3 hours may be given to abort the stye if seen early enough.

HYDATID DISEASE.

Prophylaxis. If there were no dogs containing *tænia echinococcus* there would be no hydatid disease. High license fees and laws requiring the registration of dogs would restrict the class of vagrant dogs which are more liable than the registered animals to be infected by the offal of butchers' shops and abattoirs. Owners of dogs should not feed them with raw meat, cooking destroys any bladder worms which may exist. The water supply should be protected from contamination with the tapeworm ova which are usually conveyed by the faeces of dogs. All who keep dogs should observe the strictest cleanliness in cleaning up their faeces. Suspicious water should be boiled and those ground vegetables which are usually eaten raw (lettuces, etc.) should be thoroughly washed or scalded. Kissing pet dogs is not only a disgusting but a dangerous habit.

Treatment. Puncture under antiseptic precautions, with an aspirator needle which should not exceed $\frac{1}{8}$ inch in diameter. This withdrawal of fluid cures by causing the death of the parasite. This operation is, however, dangerous because it sometimes induces suppurative changes. A safer proceeding is the removal of the parasite by incision and leaving the cavity of the adventitious sac to drain externally.

HYDROCELE.

The sac should be tapped under the most antiseptic conditions to prevent infection. After withdrawing the fluid with a syringe, inject ten or fifteen drops of carbolic acid or the same amount of tincture of iodine or chloroform to cause an adhesive inflam-

mation. (This may be done by unscrewing the syringe from the needle, leaving the needle in position in the sac. Inject the solution through the same puncture.) Strap up the testicle for a few days and order the patient to remain in bed during this time. Before ten days elapse the sac usually refills, but this is gradually absorbed and is gone in about six weeks. If after that time the sac still remains large, repeat the operation.

In children hydrocele is frequently curable by multiple punctures with a needle.

HYDROCEPHALUS.

Very little can be done from a medical standpoint. Compression of the head with tight bandaging has been tried with occasional improvement. Puncture of the lateral ventricles with slow withdrawal of the fluid has done good in a few cases. Attempts to obliterate the ventricles have recently been made, but with a large percentage of failures.

HYDROPHOBIA. (RABIES.)

Prophylaxis. Systematic muzzling of all dogs.

Immediate treatment. Suck bite and wash mouth immediately. Cauterize with red-hot iron or Paquelin cautery; or use strong carbolic acid. Then the patient should be sent immediately to a Pasteur institute for treatment with attenuated virus, consisting of bits of spinal cord properly prepared from artificially infected rabbits. Confine animal which bit patient, keep it under observation, and send notes of its condition and progress to the Pasteur institute. Do not kill the animal.

If, in spite of everything, an attack comes on, the treatment is only palliative. Keep patient quiet in a darkened room, maintain nutrition by rectal enemas, and allay the paroxysms by chloroform inhalation, and hypodermic injection of morphine.

The following may be given by the rectum to assist in calming the convulsions:

R.	Chloralis hydrat.....	3i
	Potass. bromid.....	3i
	Aquæ.....	3ii

M. Sig. One dose. Repeat every three hours.

HYPERCHLORHYDRIA (See Acidity, Gastric).

HYPOCHLORHYDRIA (See Achylia, Gastric).

HYPPOCHONDRIASIS.

Improve the general health. Give the patient congenial occupation and recommend amusements. He should avoid the ennui of an idle life. If any diseased conditions exist remove them, but do not remove healthy organs or make too many exploratory incisions. Gain the patient's confidence, but do not ridicule his symptoms or supposed sufferings. Suggestive therapeutics may be of some benefit in these cases.

HYPODERMOCLYSIS, PRACTICAL DIRECTIONS FOR.

To the distal end of the rubber tube of an ordinary clean glass irrigating apparatus, tie a needle with a caliber about that of an antitoxin needle. Fill the reservoir with normal saline solution about 110° F. (to allow for cooling), and hang the reservoir about two feet above the level of the patient's body.

Clean thoroughly and antiseptically the skin at the site of the operation, which should be about midway between the navel and the anterior superior spine of the ilium, and insert the needle taking care to avoid any large vessels.

Another favorite place of injection is the chest, either on one side or on both sides at the same time with a double needle.

It is necessary to avoid certain accidents and mistakes in using normal salt solution. One must know that the solution is sterile when it enters the tissues of the body. Avoid air bubbles entering into

bloodvessels or cellular tissue. The fluid must be at a sufficiently high temperature when it reaches the body. Chills occur from a cold solution and these are dangerous to very weak patients. The vessel containing the solution, as well as the tube and needle conducting it, must be aseptic and thoroughly per-vious; the tube should have a glass window so that the current and the presence of any foreign body may be noted. When the solution is to be introduced through the skin, either into cellular tissue or a vein, the local surface should be cleaned as much as the limited time will permit. Probably not more than half a liter should be injected into the tissues through one puncture, as localized necrosis and septic inflammation have resulted from over-dis-tension of the tissue spaces. Ordinarily not more than one ounce per minute should be injected into tissues or veins.

HYSTERIA.

Prophylaxis. Children who are predisposed to functional nervous disease should be trained and educated with the utmost care. Their self-control should be cultivated. Their whims should not be gratified and while they should not be over-indulged, neither should they be too severely punished nor ridiculed. They should be removed from association with hysterical persons. Early marriage should not be encouraged for it may aggravate the neurotic tendency.

Treatment. This should be both firm and gentle and should be directed to the body as well as to the mind. Much depends upon the personality of the physician who should inspire the confidence of his patient. The patient should not be sympathized with too much, nor ridiculed as if she were shamming.

Attend to the patient's general health. Systematic exercise in the open air, hydrotherapy, mas-sage and electric treatment are of the utmost im-

portance. In obstinate cases, especially when associated with mal-nutrition, Weir Mitchell's rest cure often gives excellent results. See **Weir Mitchell's Rest Cure.**

The anæmia should be combated with arsenic and iron. Disease of the uterus if present should be attended to, but undue handling of the genitals should be avoided.

For nervous irritability give bromides, camphor monobromata, asafœtida, phenacetin, chloroform, or valerian, but do not give chloral, opium or alcohol.

The following pill may be given:

- R. Zinci valerianat grs. xlviii
Quin. valerianat..... grs. xxiv
Ferri valerianat..... grs. xlviii
M. et ft. caps. No. xxiv.
Sig. One every four hours.

ICHTHYOSIS.

This congenital condition is readily relieved by the administration of thyroid extract in 5 grain doses four times a day. The condition returns however when the tablets are discontinued:

- R. Tab. extr. thyroid..... gr. v
No. c.

Sig. One four times a day.

The external treatment consists in giving a hot bath with soft soap and plenty of friction to remove the epidermal masses. Morning and evening the parts should be massaged with some simple ointment to keep the skin supple and pliable.

ICTERUS. (JAUNDICE.)

Jaundice is a symptom, not a disease. Look for and treat the cause which may be any obstruction in the biliary passages such as gall-stones, parasites or tumors (gumma, carcinoma, sarcoma). It may also be due to catarrhal swelling of the large or small biliary ducts, or it may be due to an extension of inflammation from the stomach closing the opening

of the common duct. It may also be due to toxic substances as phosphorus, arsenic, snake venom, and the poisons of yellow fever, typhoid, pneumonia, etc.

Icterus is a constant symptom of acute yellow atrophy, icterus neonatorum and atrophic cirrhosis of the liver. Emotions such as fright, etc., will often cause a mild jaundice.

For the treatment of the above causes see the appropriate headings. In cases of temporary icterus, hot baths, sodium phosphate and salicylic acid preparations are very useful.

ICTERUS NEONATORUM.

Little or no treatment is required, for this condition passes off in a few days. Syrup of rhubarb and calomel however are often administered.

R.	Hydrarg. chlor. mit.....	gr. i
	Sacch. lact.....	grs. xii
	Ext. rhei.....	grs. ii
	M. et ft. chart. No. xii.	
Sig. One every three hours.		

ILEO-COLITIS, ACUTE. (ENTEROCOLITIS, ACUTE COLITIS.)

Prophylaxis. Diarrhoea in summer should never be neglected. Plenty of fresh air and proper clothing are essential. Indiscretions in diet should be avoided.

The diet. During the first few days, milk should be withheld. Give skimmed milk, animal broths, rice and barley water; later on after the acute stage is over give raw beef, kumyss, eggs, boiled milk and milk gruels. Avoid such articles as potatoes, corn, tomatoes, and all fruits.

At the beginning of the attack, give purgatives, stop all foods, and irrigate the colon. Castor oil should be given in the dose of one teaspoonful for a child six months old. It cleans and soothes the intestinal tract. If the stomach is irritable give:

R.	Hydrarg. chlor. mit.....	grs. ii
	Sacchar. lact.....	grs. xii
	Cerii oxalat.....	grs. iv

M. et ft. chart. No. xii.

Sig. One every two hours.

Opium must be given for the pain and tenesmus, but should not be given until twelve hours after the first dose of the purgative. Give it as in the following prescription:

R.	Bismuth. subnitrat.....	5iiss
	Tinet. opii camphorat.....	5iss
	Aquæ anisi.....	5ii
	Aq. menth. pip.....	5ii
	Tinct. catechu.....	5ii
	Syr. acac.....q. s. ad.	5ii

M. Sig. One teaspoonful every three hours.

Irrigation of the colon should be practiced in conjunction with other remedies. The water should contain a saline such as common salt (one drachm to the pint) at a temperature of from 100° to 110° F. One or two quarts should be injected high up into the colon with a long rectal tube twice a day.

If the tenesmus is very severe, small injections of hot water, ice water and mild astringents may be given. The best astringents are tannic acid and hamamelis. Add one drachm of tannic acid to the pint of water. Injections should not be given when they do more harm than good, that is, if the child resists and screams. Some cases are much benefited by castor oil in small doses; that is, in emulsion every two hours.

In cases which resist the above treatment, bismuth may be tried in large doses, one or two drachms in 24 hours to a child one year old. For severe tenesmus inject:

R.	Cocain. muriat.....	gr. $\frac{1}{4}$
	Amyli	3ii
	Tinct. opii	gtts. v
	Aquæ.....q. s. ad.	3iii

M. Sig. Inject into rectum at one time.

Stimulants are necessary in most cases. For a child one year old give 10 drops of brandy in a teaspoonful of water every hour. When convalescence begins, carefully watch the diet so that an over-anxious parent does not overfeed. The following tonic may be given to a child one year old:

R.	Liq. potass. arsenit.....	gtts. vi
	Tinct. nuc. vomic.....	gtts. xxiv
	Elix. gentian. glycerin.....	ʒ iss.
	Vin. xerci.....q. s. ad.	ʒ iii
M.	Sig. One teaspoonful three times a day.	

IMPETIGO

The treatment of this disease is simple and rapidly curative. Remove the crusts by a thorough soaking in olive oil until they can be easily picked off, then apply:

R.	Hydrarg. ammon.....	grs. x
	Ungt. petrolat.....	ʒ i

M. Sig. Apply twice a day.

Usually complete cure results after a week's treatment.

IMPOTENCE.

Look for the cause and remove it if possible.

The following prescription will be found of benefit in many cases of impotence:

R.	Mass. ferr. carbonat	ʒ ii
	Zinci phosphidi.....	gr. iss
	Strych. sulphat.....	gr. ʒ
	Extr. damiani.....	grs. xxxvi

M. et ft. caps. No. xxiv.

Sig. One after each meal.

The following may be given to debilitated patients with spermatorrhea:

R.	Auri et sodii chloridi.....	gr. i
	Sodii arsenatis.....	gr. ss
	Barii chloridi.....	grs. iv
	Extr. nuc. vomic.....	grs. xii
	Extr. cannabis indicæ.....	grs. vi

M. et ft. pil. No. xxiv.

Sig. One after each meal.

Cantharis, phosphorus and strychnine are also of service. The following may be prescribed in cases of nervous debility:

R. Camphoræ.....	grs. xxiv
Quin. hydrochlor.....	grs. xxiv
Extr. nuc. vomic.....	grs. xii
Tinct. cantharid.....	m. xxiv
Oleoresinæ capsici.....	grs. iv

M. Ft. pil. No. xxiv.

Sig. One after each meal.

If the patient is newly wed and the impotence is due to nervousness or to overwrought desire after a long engagement or sexual abstinence, he should be advised to sleep apart from his wife for a time and to make no attempt at sexual intercourse. Hydrotherapy and a diet of highly seasoned food, red meats, etc., will in a few days or weeks at most result in a condition of restored vigor when coitus (usually matutinal) may be successfully performed.

If the patient's impotence is due to sexual excesses, moral, or, what in this case is the same thing, hygienic advice should be given. This is of more value than drugs but in some instances bromides may be given.

If the patient is the victim of quacks, masturbation or prolonged gonorrhœa, or of all combined, reassure him, and attend to his general health. At the same time the following prescription may be given in the hope of stimulating the sexual centers:

R. Zinci phosphid.....	gr. $\frac{1}{4}$
Ferri arsenitis.....	gr. i
Strych. sulphat.....	gr. i
Quin. hydrochlor.....	grs. xxiv

M. et ft. pil. No. xxiv.

Sig. One after each meal.

The patient's mind should be diverted from his troubles, some imaginary, e. g., "lost manhood," others

real, by change of air and pleasant surroundings. He should take outdoor exercise and if possible, salt water baths. The cold shower and sponge bath, followed by friction, and the alternate hot and cold douche to the spine are of considerable value.

In some cases massage in the genital region including the perineum, testicles and groin, or the interrupted current passing from the perineum to the glans and from the groin to the testicle have been found of benefit. If, however, erections appear during these manipulations this treatment should be stopped.

In cases of impotence and seminal weakness the following may be given:

R.	Mangan. dioxid.....	grs. xii
	Quin. valerian.....	grs. xxiv
	Ferri valerian.....	grs. xlvi
	Acid. arseniosi.....	gr. $\frac{1}{4}$
	Extr. ergotæ.....	grs. viii

M. et ft. caps. No. xxiv.

Sig. One three times a day.

Damiana forms the principal ingredient of the so-called "manhood-restorers" of quacks, and although it has some stimulant effect upon the sexual appetite and function its aphrodisiac powers are by no means so wonderful as charlatans have alleged their "manhood-restorers" to be. Damiana is specially useful in cases of functional impotence and should be combined with nux vomica and phosphorus and especially with proper hygienic treatment.

IMPREGNATION, PREVENTION OF. (See Conception, Prevention of.)

INCONTINENCE OF URINE.

In women this condition is often due to a vesico-vaginal fistula. Close the opening by operation. In old women it is often due to atony of the bladder so that coughing, laughing, and similar jars cause a sudden passage of small quantities of urine. Ten

drops of tincture of cantharides in water after meals often relieves this condition.

In old men the incontinence is often due to retention; the residual urine being due to enlarged prostate or other long-standing urethral obstruction. Incontinence is also found in certain long-standing nervous diseases as locomotor ataxia, etc. Strychnine sulphate ($\frac{1}{30}$ gr.) may be given three times a day in locomotor ataxia.

Urotropin should be used when the bladder is infected and the urine is alkaline in 5 to 10 grain doses, three times a day, well diluted with hot water. (See also Enuresis in Children.)

INCUBATION PERIODS.

In the following infectious diseases the incubation periods in days, are: (a) chicken pox, 10 to 16; (b) diphtheria, 2 to 10; (c) German measles, 7 to 18 or more; (d) measles, 10 to 14; (e) mumps, 10 to 22; (f) scarlet fever, 1 to 8, usually 3 to 5; (g) small-pox, 12 to 14; (h) typhoid, 7 to 21, usually 10 to 14; (i) typhus, 5 to 14, very variable; (j) whooping cough, 7 to 14.

INFANTILE SPINAL PARALYSIS. (ACUTE ANTERIOR POLIOMYELITIS.)

Before paralysis occurs the treatment is symptomatic. The bowels are kept open by calomel followed by a saline. Tincture of aconite one minim every half hour may be given for the fever.

When paralysis has occurred apply counter-irritation to the spine by painting with iodine, cupping, leeches, the Paquelin cautery, mustard poultices, etc. The child should be encouraged to lie on its stomach. A general mustard bath may be of use. Wrap the affected limbs in cotton wool.

The following prescription is of use in the acute stage, or a child five years old:

R.	Tinct. aconit.....	m. iv
	Spts. æther. nitros.....	3ii
	Aquæ anisi	q. s. ad. 3ii
M. Sig. One teaspoonful every three hours.		

Chronic or paralytic stage. After two or three weeks apply counter irritants to the spine, e. g., iodine painting and cupping, and begin galvanic electric treatment, applied both to the spine and paralyzed muscles. One large flat electrode (anode) is slowly stroked over the affected muscles and the other (cathode) over the spinal column. The applications should last about five minutes and should be repeated once every second day, and treatment kept up for several months. Massage, local bathing and shampooing are also of service. Give strychnine also in gradually increasing doses.

The patient should take moderate exercise in the open air, and should use light gymnastic apparatus.

For the prevention or correction of deformities and contractures application of splints, braces, and other orthopædic appliances are necessary. Surgical intervention such as tenotomy and tendon-grafting may have to be resorted to.

INFANTILISM.

Try to determine the cause. If due to defective secretion of the pancreas (pancreatic infantilism) give pancreatic extract, three drachms per diem, to be taken two hours after food, with a little bicarbonate of soda to prevent it being rendered inactive by the acid stomach contents.

Infantilism may also be due to chronic diarrhœa, defective thyroid secretion or congenital syphilis, or it may develop without any apparent cause.

INFANTS, FIRST CARE OF.

Tie the umbilical cord, wash the child's eyes with boric acid solution, and wrap it in soft warm flannel.

The first bath should be given in water at a tem-

perature of 98° F. and the child should be dried beneath warm flannel so as to avoid chilling its body. The second bath should be given at a temperature of 93° F. when the navel string has become detached (from the fifth to the ninth day).

The infant's clothing should be warm, loose and easily removable. There should be no dragging on the navel, nor undue pressure on the chest or abdomen; all should hang loosely from the shoulders. An abdominal band is not necessary, but if used it should not be pinned so tightly as to interfere with respiration or digestion.

Apply the infant to the breast as soon as the mother has recovered from the exhaustion of childbirth. Feeding should be as regular as possible. The mother should not give the child the breast as soon as it cries for the fretting is generally due to colic and not to hunger. The child should be weighed every week to ascertain its gain or loss. (See also **Feeding of Infant.**)

INFECTION PERIOD, CESSATION OF.

In case of the following infectious diseases the period of infection ceases in (a) chicken pox, when every scab has fallen off; (b) diphtheria, in four weeks if no discharges and no albumin, and if the bacteriological examination of the nose and throat be negative; (c) German measles, in not less than ten days from the appearance of the rash; (d) measles in not less than two weeks from the appearance of the rash; (e) mumps, in not less than three weeks, and then only when one week has elapsed since the subsidence of all swelling; (f) ringworm, when examination reveals no broken-off diseased hairs; (g) scarlet fever, when desquamation and sore throat and albuminuria disappear, but never in less than six weeks; (h) small-pox, when every scab has disappeared; (i) typhus, after four weeks; (j) whooping cough, in five weeks from the beginning, provided

all characteristic spasmodic cough and whooping have ceased for at least two weeks.

INFLUENZA (See Grippe.)

INGROWN TOENAIL (UNGUIS INCARNATUS).

Prophylaxis. Patient should take proper care of the feet and wear well-fitting shoes of good length, wide across the toes and with low broad heels.

Treatment. The soft parts should be pressed back from the nail at its root and sides and the epithelium should be frequently removed. The middle of the nail should be scraped thin with a knife and a notch cut in the center of the free border in order to stimulate the growth there and away from the edges.

INHALATIONS, HOW TO GIVE.

Inhalations should be given in an inhaler or in a jug with a towel placed round it so that the patient breathes only the steam. Water at 140° F. to 150° F. should be used. A tent and steam kettle, so often used in bronchitis and tracheotomy may be made of folding screens covered by quilts or blankets so as to exclude all draught, and enable the space to be filled with steam. An equable temperature should be maintained especially in the case of young children and the supply of steam should be kept constant.

INJECTIONS, HYPODERMIC, HOW TO GIVE.

Great care must be taken in sterilizing both needle and syringe. Having first cleansed both needle and syringe fill the syringe accurately with the solution to be injected. Then drive the fluid to the point of the needle so as to expel the air. Next cleanse the skin and hold it firmly raised into a fold, then insert the needle in a direction nearly parallel with the surface into the fold. When the point has passed

into the subcutaneous tissue empty the syringe slowly then withdraw it and place a finger over the puncture for a minute or two. Be very careful to avoid veins.

INSANITY.

Prevention by the State. A good deal might be done by government in the prevention of insanity, by the enactment of laws prohibiting the marriage of imbeciles, chronic epileptics, habitual drunkards, or persons belonging to markedly neurotic families. Colonies for the insane under government control should be fostered. Persons in indigent circumstances showing signs of incipient insanity, as well as patients discharged from insane institutions should receive government aid and protection to enable them to support themselves.

Treatment. To meet the excessive waste of tissues which is so characteristic of mental disease, concentrated nourishment should be given. In some cases forced feeding or nutrient and stimulant enemata may be necessary. Forced feeding is best done by nasal tubes with the patient seated, but the stomach pump may be necessary at times. Meat pulp and purees may be given in amounts 20% above the average rations in order to combat the constant danger of inanition. Chronic insanity is often due to defects in feeding at the curable stage.

The frequent insomnia of insane persons may be combated by keeping the patient for a long time in the open air, by warm baths with cold applied to the head, and by giving hot drinks about bedtime. When these simple means fail, chloral hydrate either alone or combined with morphine or bromide of potassium may also be given. (See also under **Insomnia**.)

The tendency to violence requires the most careful vigilance of experienced and sympathetic nurses. Restraint is unnecessary in the great majority even

of acute cases, but when restraint must be resorted to, mechanical restraint by means of a restraining sheet is better than manual restraint by attendants and nurses. Manual restraint is too liable to be abused by impatient attendants.

In insanity due to syphilis the usual anti-syphilitic remedies are indicated.

Patients with melancholia who refuse to take exercise, or who mope listlessly when sent out of doors, are often much benefited by vigorous massage. Turkish baths are of great service in melancholic and neurasthenic cases whether the patient be strong or debilitated, or whether he be old or young.

In all cases of insanity the indications are to build up the weak and exhausted, encourage and divert the depressed, restrain the violent and excited, and to care for the chronic and demented as if they were children. Above all, the methods should be humane; amusement, recreation, and useful employment should be given when feasible; there should be no punishments and very little physical restraint and that only when absolutely necessary.

INSOMNIA.

Treat cause if possible. In children it is usually due to gastro-intestinal disturbance. In the middle-aged often due to alcoholism or to business worries. In the aged to arterio-sclerosis. Insomnia is frequently one of the first symptoms of mania. The urine should be examined in every case of insomnia.

Treatment. A warm bath or a hot foot bath, with mustard or a glass of hot milk on retiring is often sufficient. Usually hot whisky and water induces sleep, but sometimes causes sleeplessness. The interval between supper and bedtime should not be too great.

Drugs used: chloral hydrate, opium, morphine, potassium bromide, potassium iodide, veronal, sulphonal, trional.

Of great benefit are trional in doses of 15 grs. at bedtime, or sulphonal in doses of 10 grs. to be repeated in one hour if necessary.

In the insomnia of the acute fevers, e. g., typhoid, no special treatment is necessary beyond that for the fever itself.

The following prescription may be used in nearly all cases of insomnia with satisfactory results:

R.	Chloral. hydrat	5iii
	Potass. bromid.....	3iii
	Tinct. hyoscyam.....	5ii
	Aquæ.....	5i
	Syrup. aurant. cortic.....q. s. ad.	3ii

M. Sig. One teaspoonful at bedtime.

In stubborn cases repeat every hour until sleep is produced.

This prescription is of special benefit in cases of insomnia due to alcoholism.

INTESTINAL OBSTRUCTION, ACUTE. (ILEUS.)

This is a condition where prompt diagnosis and treatment save many lives. The old treatment of "rest, opium and starvation" has no place in modern medicine. It is mentioned here only to be condemned.

When beginning treatment, do not under any circumstances give purgatives. Enemata may be tried. Food should not be given by the mouth as it only increases the patient's discomfort. If no relief is obtained after washing out the lower bowel several times, then the only proper treatment is laparotomy. Further delay is serious. The sooner the patient is operated on, the better are the chances of success. We should not wait for fecal vomiting.

No case is too late for operation. The authors have recently seen recovery in a woman 65 years old who had bowel obstruction for six days and in whom it was necessary to remove 18 inches of gangrenous intestine.

INTESTINAL OBSTRUCTION, CHRONIC.

If due to stricture within or without the intestine, proper food should be taken. All indigestible articles of diet should be avoided, for example, cherry stones, watermelon seeds, raisins, orange pips, etc. Enemata should be given but purgatives should be avoided. If the stricture is in the rectum it should be stretched by bougies. If the stricture is due to carcinoma of the rectum, early operation will frequently prolong life three or four years. If the stricture is in the small intestine, resect and bring the ends together with a Murphy button. Bands around the intestine frequently cause chronic obstruction. The life of these patients is a miserable one. They ought to be encouraged to submit to laparotomy early.

INTUBATION, DIRECTIONS FOR.

When there are progressive dyspnoea, labored breathing, cyanosis, physical depression and a failing pulse, intubation is indicated, in cases of diphtheria. This operation is preferable to tracheotomy, because it is bloodless, shorter, easier and quicker.

Two physicians and a nurse are usually necessary for the operation. The nurse sits upright holding the child in an upright position firmly against her left shoulder. The child is covered with a light blanket and its legs are firmly gripped by the legs of the nurse. The assistant physician standing behind the nurse's chair grasps the child's head between his hands and holds it as though the child hung from the top of its head.

The operating physician sitting in front of the child inserts the mouth gag between the left jaws and gives the handle of the instrument to the assisting physician to hold. Next a tube of the proper size is selected: 5 to 6 millimeters, one to two years; 6 to 7 millimeters, two to four years; 7 to 8

millimeters, four to six years; 8 to 9 millimeters, six to eight years. The eye of the selected tube is threaded with braided silk. The operating physician then inserts his left index finger into the patient's mouth, hooks back the epiglottis and passes the tube in the middle line until its tip engages in the glottis. By gentle pressure it is passed downwards until the introducer lies crowded against the tongue. The left forefinger is then taken from the epiglottis and pushes home the head of the tube at the same time that the obturator is released and withdrawn from the mouth. The finger and gag are then removed.

The tube is usually replaced two, three or four times, and need rarely remain more than five or six days when the serum is used. It is removed by the extubator (extractor) or by a string. In an emergency when there is a sudden blocking of the tube or in cases where the tube has slipped below its proper position, the child should be held head downwards and pressure made on the trachea just below the tip of the tube.

INTUSSUSCEPTION.

If the diagnosis is made before adhesions have formed, the intussusception may be reduced by inflation with air or injection with about 6 quarts of normal saline solution.

Air should be forced into the bowel by the anus, by means of a soft rubber catheter to which a bellows is attached. The air may be prevented from escaping by compressing the nates. This operation is best done under anaesthesia.

Injection of fluid is made from a soft catheter to which a fountain syringe is attached and placed about five feet above the patient. In both procedures the patient should be in an inverted position.

Too much time, however, should not be spent over the methods of inflation or injection; if the

condition is not relieved promptly, it should be treated as **Intestinal Obstruction, Acute**, which see.

IRITIS.

The treatment is both local and constitutional. Most cases are either syphilitic or rheumatic.

Local treatment. Atropin should be used from the beginning to the end of the disease:

R. Atropin sulphat..... gr. i
Aqua destillat..... 3ii

M. Sig. One drop in the eye four times a day.

When an eye is under atropin the patient should not go into direct sunlight, as it will produce headache.

Hot water continuously applied on gauze for several hours a day relieves the tension and inflammation, besides assisting the action of the atropin. Blood-letting is also an important measure for the relief of pain and congestion. Three leeches should be applied to the temple.

Constitutional treatment. If due to syphilis, push anti-syphilitic treatment as actively as possible. If the patient is in a hospital, give $\frac{1}{4}$ gr. of bichloride of mercury three or four times a day hypodermically. If it is not possible to use this method give inunctions of ungt. hydrarg. One drachm should be thoroughly rubbed into the skin two or three times a day until the gums become tender. If the inunctions are not convenient give the following pill:

R. Pil. hydrarg. protoiodid..... gr. $\frac{1}{4}$
No. c.

Sig. Begin with two four times a day and gradually increase till four grains a day are taken.

If ptyalism results, stop the mercury and give iodide of potassium in large doses. Use the saturated solution which represents about one grain to the drop. Begin with 20 drops three times a day and gradually increase.

The internal treatment should be kept up for at

least two years. See that the patient lives on proper food and under hygienic conditions.

If anæmia is present give:

R.	Hydrarg. cum creta	gr. iss
	Ferri reducti.....	gr. i
	Quin. sulphat.....	gr. ss
	Pepsin	gr. iss
	Pulv. opii.....	gr. $\frac{1}{2}$
	Extr. gentian.....	gr. $\frac{1}{2}$

M. et ft. pil. No. i.

Sig. One three times a day.

If the iritis is due to rheumatism, give some preparation of salicylic acid, e. g., sodium salicylate, aspirin, etc.

R.	Sodii salicylat.....	3iv
	Vin. colchic. semin.....	3iv
	Aquæ.....	3iss
	Ess. pepsin.....q. s. ad.	3iii

M. Sig. One teaspoonful in a glass of hot water every three hours.

In chronic cases, iodide of potassium, hot baths and diaphoretics ought to be used:

R.	Potass. iodid.....	3iv
	Vin. colchic. semin	3iv
	Aquæ.....	3iss
	Syr. aurant. cortic.....q. s. ad.	3iii

M. Sig. One teaspoonful in water three times a day.

ITCH. (SCABIES.)

In all cases the burrows of the parasite must be opened up. This is done by soaking the patient in hot water for twenty minutes, then soaping thoroughly with a strong alkaline soap such as sapo viridis. The affected parts should be scrubbed with a hard bristle brush so as to break the burrows. The patient should then be dried and either of the following ointments rubbed into the affected parts

if the case is recent, or over the whole body if the case is chronic:

R.	Sulphuris sublimati.....	3 <i>i</i>
	Balsami Peruviani.....	3 <i>ss</i>
	Adipis.....	3 <i>i</i>

M. Sig. Rub in thoroughly.

Or:

R.	Betanaphthol.....	3 <i>ii</i>
	Sulphuris loti.....	3 <i>ii</i>
	Adipis benzoinati.....	3 <i>ii</i>

M. Sig. Apply freely after hot bath.

The patient should sleep with the applications on all night and take a soap and water bath in the morning, putting on clean underclothing. This treatment should be repeated for three nights in succession but never more. The underclothing should be sterilized with boiling water.

IVY POISONING. (RHUS TOXICODENDRON.)

The intolerable itching may be relieved by strong alkali solutions or by brine, or by a dilute solution of bromine. Hypodermic injection of morphine, etc., may be given to secure sleep. Vigorous cathartics are also of some value.

The following prescription may be given:

R.	Sodii hyposulphit.....	3 <i>i</i>
	Glycerini.....	3 <i>iv</i>
	Aquæ destillat.....q. s. ad.	3 <i>viii</i>

M. Sig. Keep constantly applied.

JAPANESE RIVER FEVER.

The ulcer which develops at the point of entrance of the germ into the body should be kept surgically clean. The lymphangitis may be relieved by the application of cold. The rest of the treatment is symptomatic. The cautious use of quinine and sodium salicylate is often of service, and European

observers have pointed out that the Japanese react much more readily to antipyretics than the white races.

JOINTS, CHRONIC DISEASE OF.

Blisters, counter-irritation, cauterization, application of heat and cold, massage, friction and galvanism are all usually beneficial in joint disease because of the improvement which they effect in the external circulation, and the corresponding diminution of the internal congestion.

Compression by means of rubber bandages promotes absorption of fluid from the cavity of a joint. By means of pads cut so as to fit in the depressions, this pressure should be exerted chiefly on the affected tissues and not on the prominent healthy parts of the bone.

During active inflammatory conditions of the joint, its motion should be prevented (fixation). When convalescence is taking place, however, the natural function of the joint (motion) should be restored.

The diseased joints should also be protected from jars, e. g., by the use of crutches when the joints of the lower limb are affected.

When the inflamed epiphyses are being crowded together, the bones should be pulled apart (distraction).

KALA AZAR. (TROPICAL SPLENO-MEGALY.)

Prophylaxis. All cases should be isolated as soon as they are recognized. The families of the patients should be segregated also, and the houses in which they lived should be destroyed in order to prevent the disease from spreading among the other coolies.

Treatment. Quinine in large doses helps to control the fever and to lengthen the periods of apyrexia. Red bone-marrow given either raw or in tablet

form often increases the number of polynuclears and in this way may benefit the leucopenia. The diarrhoea may be controlled by giving astringents like bismuth and salol, as well as by proper dieting. Change of climate or removal of the patient to a more healthy locality is of some service.

KELOID.

This new growth may be removed temporarily by means of caustic pastes, electrolysis or excision, but it is almost certain to return and in an aggravated form.

The most hopeful treatment is by the injection of a ten per cent solution of thiosinamin either in alcohol or in equal parts of glycerine and water:

R.	Thiosinaminæ.....	grs. xii
	Glycerini.....	3ss
	Aquaë destillat.....q. s. ad.	3iii

M. Sig. Inject hypodermically ten or fifteen minims into or around the keloid every three days.

Good results have also followed the use of the X-rays, with quarter hour exposures of three amperes, using a vibrating interrupter and holding the tube about three inches away.

Satisfactory results have also followed from embalming the tumor and the skin in its neighborhood. This is done by injecting a twenty per cent sterilized solution of creosote in oil with a Pravatz syringe.

KERATITIS, INTERSTITIAL.

Treat the cause which may be syphilis, malaria, rheumatism, anaemia, rachitis, etc.

If due to syphilis, give mercury by inunctions or internally in the form of the protoiodide of mercury pill ($\frac{1}{4}$ gr. each) two to four, thrice a day.

If due to malaria give 5 to 10 grs. of quinine three times a day.

If due to rheumatism give salicylate of soda in 15 gr. doses in hot water after each meal.

If due to anæmia give Blaud's pills, 5 grs. each four times a day.

If due to rickets give nourishing food, orange juice and syrup of hypophosphites, one teaspoonful four times a day.

In cases due to debility give:

R.	Liq. acid. arsenios.....	5i
	Syr. ferri iodid.....	3iss
	Syr. aurantii cortic.....q. s. ad.	3iii

M. Sig. One teaspoonful in water after each meal.

Plenty of fresh air and sunshine combined with good nourishing food in the country or at the seashore are important adjuncts to the medicinal treatment.

Local treatment. The patient must wear dark glasses to protect the eyes from the light. Hot stupes and atropin should be used:

R.	Atropin. sulphat.....	gr. i
	Aquæ destillat.....	3ii

M. Sig. One drop in eye three times a day.

When the inflammation is on the wane, absorption may be hastened by massage with the yellow oxide of mercury ointment:

R.	Hydrarg. oxid. flav.....	grs. iii
	Ungt. petrolat.....	3iv

M. Sig. A small quantity the size of a pin head on the lower conjunctiva. Rub thumb over upper lid.

KERATITIS, PHLYCTENULAR.

Remove its causes which usually are struma, intestinal parasites, adenoids, measles, eczema, improper feeding, etc.

Treatment. The general health being below par, it is necessary to give such tonics as iron, phosphorus, and cod liver oil:

R.	Liq. ferr. peptonat. cum mangan. (N. F.).....	3iii
----	--	------

Sig. One teaspoonful in water after each meal.

Or:

R. Syr. ferr. iodid..... ʒii
Sig. Half a teaspoonful in water after each meal.
The diet should exclude candy, pastry, tea, coffee, bananas, etc.

Locally. Frequent cleaning with a saturated solution of boric acid is necessary. Atropin should be used:

R. Atropin. sulphat..... gr. i
Aquæ destillat..... ʒii

M. Sig. One drop in the eye four times a day.

Hot stupes are very beneficial and also the following yellow oxide of mercury ointment:

R. Hydrarg. oxid. flav..... grs. iv
Ungt. petrolat..... ʒss

M. Sig. Use once a day.

KERATITIS, TROPHIC.

When due to disease of the cranial nerves treatment is usually of little avail.

The blebs and vesicles should be pricked open and the ulcers frequently washed with a hot saturated solution of boric acid.

Internally, bismuth, arsenic, quinine and strychnine are of some value:

R. Quin. sulphat..... grs. xlviii
Strych. sulphat..... gr. $\frac{2}{3}$
Ac. arsenios..... gr. $\frac{1}{4}$
Zinc. phosphid gr. $\frac{1}{4}$

M. et ft. caps. No. xxiv.

Sig. One four times a day.

KIDNEY, ACTIVE HYPERÆMIA OF.

The patient should be put to bed and kept at an equable temperature (70° F.) for at least a week. The diet should be confined to liquids, such as milk, kumyss, barley water, etc. The bowels should be kept open with Carlsbad salts, one teaspoonful in hot water in the morning. The skin should be

kept open by means of baths, hot or Turkish. Cupping over the loins is of decided benefit. Avoid liniments or poultices containing turpentine, mustard or cantharides lest absorption takes place and further irritates the kidneys. Give the patient plenty of water. Irritating diuretics must be avoided. The following may be given:

R.	Potass. citrat.....	3iii
	Spts. æth. nitros.....	3iii
	Aquæ.....	3ii
	Syr. limonis.....q. s. ad.	3iii
M.	Sig. One teaspoonful every three hours.	

KIDNEY, AMYLOID OR WAXY.

This disease can be prevented in the majority of cases if the cause (syphilis, tuberculosis, chronic suppuration) is properly treated. All chronic discharging sinuses should be freely opened. The urine of those suffering from the above disease should be frequently examined. If albumin is present, treat as in Nephritis, Chronic, which see.

KIDNEY, FLOATING OR MOVABLE.

If the patient is thin, try to replace the peri-nephritic fat by forced feeding with cream, milk, eggs, etc. A properly fitting pad will frequently keep the kidney in place. If mechanical means fail, resort to surgery and stitch the kidney in its place.

KIDNEY, PASSIVE CONGESTION OF. (CYANOTIC INDURATION.)

Treat the cause which is usually some obstructive disease of the heart or lungs. The patient should be prohibited from leading a "strenuous life." Treatment should begin with ten days' rest in bed. Elimination should be encouraged by the skin, bowels, and urinary organs. To secure free diaphoresis give hypodermically $\frac{1}{10}$ gr. pilocarpin muriate. To secure free catharsis give Rochelle salts, Carls-

bad salts, etc., in teaspoonful doses in hot water twice a day. Calomel in $\frac{1}{4}$ gr. doses every hour till six grains are taken, produces not only free catharsis but diuresis.

The drug which has been of most benefit is digitalis; it may be given in the form of the infusion or tincture:

R. Infus. digital. fol. (freshly made).... $\frac{5}{3}$ vi

Sig. One tablespoonful four times a day.

Or:

R. Tinct. digital..... $\frac{5}{3}$ i

Sig. Twenty drops in water three times a day.

A liquid diet should be strictly adhered to.

KYPHOSIS. (HUMPBACK.)

Prophylaxis. In the young the strength should not be overtaxed and slouching habits should be forbidden. In the young adult a proper position should be assumed during occupation. In the aged, hot air baths, massage and exercise often give relief from the almost natural bowing of the back.

LABOR, PROLONGED.

When due to infrequent weak pains it is not usually necessary to do anything, for after a time the pains gradually become more severe. If they last for several days it is perhaps best to give a hypodermic of morphine sulphate ($\frac{1}{4}$ gr.) at bedtime.

When the pains are continuous and cramp-like causing considerable suffering without doing any good, a hypodermic injection of morphine sulphate ($\frac{1}{4}$ gr.) combined with atropin sulphate ($\frac{1}{50}$ gr.) may be given, or:

R. Chloral hydrat..... grs. xxx

Warm milk..... $\frac{3}{3}$ iv

M. Sig. Inject this quantity into the rectum, and repeat in one hour if necessary.

When due to secondary uterine inertia, give chloral hydrate in 20 gr. doses every three hours.

Quinine in five grain doses is sometimes beneficial, and the same is true of ergot. One teaspoonful of the fluidextract may be given, but the use of ergot in labor should usually be restricted to the third stage.

LACHRYMAL DUCT, STRICTURE OF.

If possible, remove the cause, e. g., nasal hypertrophy, acute or chronic inflammations of the lachrymal sac, etc.

Probes should be passed into the ducts and left in for ten to twenty minutes. This should be repeated at first every two or three days, then gradually increase the intervals and the size of the probes. Before passing through a probe a 2 per cent solution of cocaine should be used to allay pain.

After the probe is withdrawn wash out the sac with a saturated solution of bicarbonate of soda, follow this with a $\frac{1}{2}$ per cent solution of nitrate of silver.

If the stricture shows no sign of improvement after a couple of months' treatment, then remove the lachrymal sac and gland.

LACTATION, TO DIMINISH.

When the secretion of milk is excessive and poor in quality because of exhaustion (tabes lactealis), or if it persists when the child is not nursing (galactorrhea), the child should be weaned at once, both in the interest of the child and of the mother, for the excessive flow is exhausting to the mother, and its poor quality is hurtful to the child.

Tonics and change of air are to be recommended. Locally, atropin in glycerin or a belladonna plaster or ointment will be found beneficial. Electricity may be found of service, as also the internal administration of iodide of potassium.

The practice of some women to prolong the nursing period in order to avoid conception or because it is the custom of the country, e. g., in Japan and the Philippines where it may extend to two or more years, is a bad one and should be prohibited by the medical attendant.

When the milk-secretion is out of all proportion to the needs of the child (polygalactia), the diet and especially the amount of fluids should be restricted. The over distended breasts may be emptied by massage or by the breast pump.

LACTATION, TO INCREASE.

When the quantity of milk is normal it cannot be increased by feeding, although individual constituents may, e. g., forced feeding with proteids or fats, increases the percentage of fatty matter in the mother's milk.

But when there is a deficiency of milk due to the poor health of the mother or to poor diet, the secretion may be considerably increased by a generous diet consisting of rich food, Guinness' stout, malt extracts, beef juice, tonics, etc. Hard or soft shelled crabs, shell fish and other forms of sea food are of special value in stimulating the milk secretion. Among vegetables, boiled fresh beets are also of benefit. Gentle massage, change of air, etc., are all valuable adjuncts. Pilocarpine nitrate ($\frac{1}{10}$ gr.) injected hypodermically also increases the secretion.

LANDRY'S PARALYSIS.

The treatment is the same as that for Myelitis, which see.

LARYNGISMUS STRIDULUS. (SPASMODIC CROUP.)

Prophylaxis. Remove adenoids and hypertrophied tonsils, attend to the digestion, diet, and general hygiene of the patient.

Treatment of the paroxysm. Dash cold water on the face and head, or give for inhalation a few drops of nitrite of amyl, or cause emesis by giving vin. ipecac. in doses of half a drachm to one drachm until vomiting is produced. The emesis not only rids the stomach of any irritating contents but it relieves the spasm of the laryngeal muscles.

In the interval between the attacks, give the child nutritious diet, cod liver oil, hypophosphites and arsenic:

R.	Pancreatini.....	5ii
	Olei morrhuae.....	3ii
	Syrupi hypophosphiti.....	3ii
	Acaciae.....	3iv
	Liq. calc.....q. s. ad.	3viii

M. Sig. Shake the bottle. One to two teaspoonfuls three times a day two hours after each meal.

The following mixture, combined with a rectal injection to evacuate the bowels, may be used to abort an impending attack:

R.	Potass. bromid.....	grs. xxiv
	Chloral. hydrat.....	gr. viii
	Syrupi acaciae.....	3ii
	Aquæ.....q. s. ad.	3i

M. Sig. One teaspoonful in water every four hours.

In all cases of laryngismus stridulus look for the exciting cause; the stomach may require attention, or the gums may need lancing.

LARYNGITIS, ACUTE CATARRHAL.

The patient should avoid using his voice. If the case is a mild one he need not be confined to bed but should remain in a room, the air of which is at a temperature of 70° F. to 75° F. and is rendered moist by means of steam. An ice-bag or the application of hot or cold compresses to the throat will relieve the pain and discomfort. A mild aperient may be given at the outset and the cough may be controlled by:

- R. Codeinæ phosphat..... gr. v
 Aquæ amygdalæ amaræ..... ʒ ss
 M. Sig. Five to fifteen drops every two hours.

Or give:

- R. Potass. citrat..... ʒ ii
 Vin. ipecac..... ʒ iv
 Tinet. opii camphorat..... ʒ iv
 Syr. tolutan..... ʒ iss
 Aquæ..... q. s. ad. ʒ iv

M. Sig. A dessertspoonful every three hours.

Relief may also be obtained by frequent inhalations of steam medicated with compound tincture of benzoin, turpentine or eucalyptus. About one part of each may be used to 128 parts of boiling water.

LARYNGITIS, CHRONIC.

Prophylaxis. Persons subject to this disorder should avoid exposure to cold and wet, the abuse of tobacco and alcohol, and the inhalation of dust and irritating vapors.

The larynx should first be cleansed with an alkaline spray such as dilute liquor antisepticus alkaline and then terebene, or eucalyptol should be inhaled from the surface of boiling water. Or after cleansing the parts should be treated by an astringent spray such as zinc sulphate (10 grs. to the oz.) While the larynx is being sprayed the patient should inhale so that the vapor may be drawn into contact with the inflamed area.

Powder insufflation is often very useful; the following may be prescribed:

- R. Orthoform..... gr. i
 Ac. boric..... gr. i
 Morph. sulphat..... gr. 1/8

M. Sig. Powder for insufflation.

In all cases of chronic laryngitis the expectoration should be examined for the tubercle bacillus.

LARYNGOSCOPE, DIRECTIONS FOR USE OF.

To inspect the larynx, hold the tongue well out so as to pull forward the epiglottis and then the structures below appear in the laryngoscopic mirror in the reversed position. Beneath the middle of the epiglottis, the cushion of the epiglottis may be seen as a slight swelling, and continuing downwards and backwards from the edges of the cartilage may be seen the false and true vocal cords, each marked at its extremity by two rounded nodules. In quiet breathing the glottis is nearly stationary and open to the extent of about three to five millimeters. The vocal cords bounding it look white and glistening in contrast with the red color of the general mucous membrane.

LARYNX, FOREIGN BODY IN.

Patient breathes more easily if placed on his back on table with head hanging over edge, and removal of body is thereby facilitated. Use laryngeal forceps, aided by laryngoscope. If asphyxia threatens perform tracheotomy. If the foreign body is round and smooth, invert the patient head downwards and strike upon the back.

LARYNX, TUBERCULOSIS OF.

The treatment must be local and general, whether the disease is primary or secondary.

Local treatment. Occasionally we are able to arrest the ulceration by cauterizing the affected area with 25, 50, or even 75 per cent lactic acid, after the spot has been thoroughly anesthetized with a 10 per cent solution of cocaine.

The ulcerated area should be sprayed once or twice a day with 20 grains of menthol to a drachm of olive oil. Or:

- | | |
|---|---------|
| R. Menthol..... | grs. xl |
| Ol. eucalypt..... | 3i |
| Ol. pin. pumil..... | m. xxx |
| Liq. petrolat. U. S. P....q. s. ad. | 3iv |
| M. Sig. Spray into larynx once a day with atomizer. | |

R.	Cocain. muriat.....	grs. xxv
	Orthoform.....	grs. cc
	Iodoform.....	grs. cl
	Zinci stearat. co.....	grs. c

M. Sig. Blow a small quantity into the larynx with a powder blower.

Inhalations of steam impregnated with oil, as creosote, carbolic acid, etc., occasionally do some good.

General treatment. The patient should have fresh air, plenty of sunshine, properly ventilated rooms, exercise in the open air, and a good nutritious diet of milk and eggs. For further treatment see Tuberculosis.

LEAD POISONING, ACUTE.

Use the stomach tube or give an emetic. Give either (a) half an ounce of magnesium sulphate in a glass of water, or (b) half an ounce of sodium sulphate in a glass of water, or (c) thirty minims of dilute sulphuric acid in a glass of water.

Give freely milk or white of egg or a demulcent drink. The pain may be relieved by the hypodermic injection of morphine sulphate.

LEAD POISONING, CHRONIC.

Prophylaxis. In factories where lead is used, the dust and smoke in the workrooms should be carried away by hoods fitted over the mouths of furnaces or over work-tables. Before eating, the hands of the workmen should be washed, and their outer clothing changed. No workman should be allowed to eat in the workshop. The men should be encouraged by free baths to bathe as much as possible.

Treatment. During an attack of colic the first indication is to empty the bowels. This is best accomplished by a heaping teaspoonful of magnesium sulphate every two hours, or by several doses of castor oil. If the pain is very severe it may be necessary to give a hypodermic injection of morphine ($\frac{1}{4}$ gr.)

every four to six hours. A high enema of warm water with soap suds should be used to clear the lower bowel. Apply hot poultices or fomentations to the abdomen. A daily hot bath also helps to eliminate the lead from the system. After the colic is over give potassium iodide in 5 to 10 grain doses three times a day to drive the lead from the tissues.

R. Potass. iodid..... 3iv

Ess. pepsin 3iii

M. Sig. One teaspoonful in water three times a day.

Sodium sulphite is also extensively used for the elimination of lead; it is given in doses of $\frac{1}{2}$ to 1 grain every four hours.

R. Sodii sulphitis..... grs. xii

Tinct. cinnamon..... 3iv

Aquaæ..... q. s. ad. 3iii

M. Sig. One teaspoonful every four hours.

If paralysis occurs eliminate the lead as described above and locally apply electricity and massage. Hypodermic injections of strychnine sulphate (gr. $\frac{1}{60}$) three times a day should also be used. If the wrist drops down it should be carried in a sling rather than allow it to hang down.

LEECHES, DIRECTIONS FOR APPLYING.

Wash the patient's skin well with hot water and plain soap (not scented). Never apply antiseptic lotions. Place the leech in a test-tube half full of cotton wool and hold it over the place. Put a little milk on the skin if the leech is slow in biting. When the leech is full allow it to fall off, or sprinkle a little salt on it to hasten its removal. Never pull them off, as their teeth may remain in the wound and cause a troublesome sore. Warm fomentations over the bite encourage bleeding. When the bleeding is to be arrested, a film of cotton wool placed on the bite, or pressure, cold applications, or a styptic like adrenalin is usually successful.

LEECHES, LAND. (PHILIPPINES, CEYLON, NEW GUINEA, FORMOSA, ETC.)

Travelers should be very careful in entering forests in these countries, and should ascertain from the natives whether leeches abound in them or not. On stepping into a forest one may be warned by hearing them rustling among the leaves. When they have bitten they may be made to loose their hold by the application of salt or a weak acid. Attempts to pull them off should be avoided, as parts of the biting apparatus are often left in the wound and may cause inflammation. Sometimes the wound may become infected with bacteria and cause trouble.

LEPROSY.

Prophylaxis. Prohibit the importation of known lepers, though the disease easily evades ordinary inspection, making this very difficult. Isolation should be resorted to in countries where leprosy has a great extension. Obligatory notification of the disease. Compulsory segregation when possible. If not possible, care for indigent lepers in an institution, while well-to-do patients may remain at home under proper care and restrictions.

Hygienic treatment. Fresh air, dry, well-ventilated dwellings, plentiful and varied diet, warm clothing, frequent changes of clothing, daily hot baths (105° F. or higher).

Medicinal treatment. Chaulmugra oil in doses of 5 minims, morning and evening, gradually increased until the patient is taking 250 minims daily in three doses. This drug may also be given hypodermically (5 min. increasing to 60 min.)

Externally, chrysarobin, ichthyol or resorcin may be applied to the affected parts.

Under the influence of the X-rays discolored patches and nodules often diminish and sometimes disappear.

Surgery often can do much for lepers. Amputation of a useless or gangrenous member, nerve-stretching to relieve pain, and tracheotomy when the larynx becomes invaded and dyspnoea is threatened.

LEUCORRHEA.

This is a symptom and not a disease. Look for and treat any local cause, and at the same time improve the general health of the patient by internal remedies like quinine sulphate, iron and arsenic.

In the leucorrhea of pregnancy, give a vaginal douche at bedtime of a tablespoonful of alum in a quart of water followed by the following suppository:

R.	Zinci borat.....	gr. i
	Extr. belladonnæ.....	gr. $\frac{1}{4}$
	Hydrastin hydrochlor.....	gr. i
	Boroglycerid.....	3ss

M. et ft. suppos. No. i.

Sig. Insert one in vagina at bedtime.

In gonorrhœal leucorrhea keep the skin of the sensitive and swollen genitals clean by means of a vulval pad of absorbent cotton held in position by a napkin. Replace pad and napkin several times daily. When the swelling and sensitiveness have subsided, introduce a speculum and remove the secretion from the entire surface with absorbent cotton. Then use:

R.	Argent. nitrat	grs. xc
	Aquæ.....	3iii

M. Sig. Apply carefully to vaginal mucous membrane through speculum thrice a week. This treatment should not be stopped till all discharge has ceased.

In the leucorrhea of children look for worms (lumbricoids or ascarides) and destroy them if found. Dislodge them from the rectum by a suitable cathartic. Then irrigate the vagina with the following:

R.	Sodii bicarb.....	3ii
	Ac. carbolic.....	3iv
	Glycerini.....	3iv
	Sat. sol. ac. boric.q. s. ad.	3xvi

M. Sig. One tablespoonful in a pint of water once or twice a day.

If leucorrhea is due to exposure to cold give:

R.	Plumb. subacetat.....	ʒ ii
	Laudani.....	ʒ ii

M. Sig. One tablespoonful in a quart of hot water once a day.

Or:

R.	Plumb. subacetat.....	ʒ iss
	Zinci acetat.....	ʒ iss

M. Sig. One teaspoonful in a quart of hot water once or twice a day.

For the leucorrhea of unmarried girls the following may be given:

R.	Hydrastin commercial.....	ʒ i
	Acidi borici.....	ʒ ii

M. Sig. One teaspoonful to each quart of hot water once a day.

Where an astringent is necessary give:

R.	Acidi borici.....	ʒ i
	Pulv. alum.....	ʒ iv
	Ac. tannic.....	ʒ iv

M. Sig. One teaspoonful to each quart of hot water twice a day.

Where an antiseptic is necessary (e. g., gonorrhreal) give:

R.	Liq. cresolis comp. (U. S. P.).....	ʒ ii
----	-------------------------------------	------

Sig. Half a teaspoonful to each quart of hot water three times a day.

Or:

R.	Alumin.....	ʒ i
	Zinci sulphat.....	ʒ ss
	Ac. boric.....	grs. iv

M. Sig. Dissolve in half a pint of warm water and use with a vaginal syringe twice a day.

Another useful solution is a tablespoonful of boric acid or sodium chloride to a quart of hot water.

LEUKÆMIA, ACUTE LYMPHATIC.

This disease runs a short but fatal course in six weeks or less. The high fever should be treated with hourly cold sponging and ice-bag to head. The weakness should be met with strychnine, ammonia, nitroglycerin or digitalis:

R.	Strych. sulphat.....	gr. $\frac{2}{3}$
	Tinct. digitalis.....	3ii
	Sp. glyceryl. nitrat. (U. S. P.).....	m. xxv
	Spts. vin. gall.....	q. s. ad. 3iii

M. Sig. One teaspoonful every three hours by mouth or hypodermically.

Iron is of no value; X-ray treatment is of no avail.

LEUKÆMIA, CHRONIC LYMPHATIC AND MYELOGENOUS.

The treatment is unsatisfactory in most cases. Arsenic in the form of Fowler's solution should be tried. It can be given in 5-drop doses three times a day and gradually increased until the physiologic limit is reached.

If haemorrhages occur from the nose, intestines, etc., they must be controlled by remedies recommended under those headings.

X-ray treatment has been used with considerable success in prolonging the patient's life. The authors have repeatedly seen leucocyte counts of 200,000 drop to 30,000 with marked improvement in the patient's general condition. This improvement, however, is only temporary.

Rest in bed is also of considerable importance as an adjunct to treatment.

LEUKOPLAKIA BUCCALIS. (SYPHILITIC.)

Smoking, use of condiments, etc., and other sources of irritation should be forbidden, and irregular teeth attended to. The teeth should be cleaned and the mouth washed out with Condy's fluid at least twice daily. A two per cent solution of chromic acid or perchloride of mercury painted on daily gives

relief. The brush must not be dipped directly into the bottle containing the perchloride of mercury solution or the solution soon becomes inert. In severe cases painting on strong acid nitrate of mercury will give relief for a month or two and may be used once in three months.

LICE, ON BODY.

Boil the clothing so as to kill the lice (*pediculi corporis*) which live in the seams and deposit their eggs there. Relieve the itching by warm baths to which sodium carbonate or bicarbonate has been added. White precipitate ointment may be smeared over the shoulder and armpits.

LICE, ON HEAD.

Cleanly habits are usually all that is necessary; but some aggravated cases may require preparations, e. g., kerosene oil and olive oil in equal parts (in using this warn the patient to keep it away from light or heat), carbolic acid lotion, corrosive sublimate lotion, white precipitate ointment (made with lanoline), oleate of mercury, or the following:

R.	Acid. salicyl.....	pts. ii
	Aceti.....	pts. xxv
	Alcohol (80%).....	pts. lxxv

Sig. Rub on area affected with a piece of flannel.

As a preventive measure the patient, as well as his brushes, towels, etc., should be isolated to prevent infection.

LIGHTNING SHOCK.

If the patient has been struck by lightning, rouse him and keep up the respiration and circulation. The cold douche, friction of the limbs, warmth applied to the extremities and the administration of stimulants by the mouth or in the form of enemata should be tried.

LIVER, CIRRHOSIS OF.

Remove the source of the irritation if discoverable. Stop the use of alcohol at once. The diet should

be carefully regulated; exclude coffee and spices. Milk is the ideal diet at least until the irritation of the stomach quiets down. Bitter tonics should be given to stimulate the appetite as:

R.	Tinct. nuc. vomic.....	3iv
	Tinct. quassiae.....	3ii
	Tinct. gentian comp.....	3ii
	Ess. pepsin.....q. s. ad.	3iii

M. Sig. One teaspoonful in water before each meal.

Or:

R.	Acid. nitro-muriat dil.....	3iv
	Tinct. nuc. vomic.....	3iv
	Aquaæ.....	3ii
	Syr. aurant. cortic.....q. s. ad.	3iii

M. Sig. One teaspoonful in water after meals.

Dropsy should be treated by restriction of diet, withholding common salt, decreasing the quantity of fluid ingested, and by the use of diuretics. Hydragogue purgatives such as compound jalap powder, one teaspoonful every morning should be given. Turkish and Russian baths are indicated in robust individuals. Tapping should be resorted to after all other means are exhausted.

Hæmatemesis is controlled by cold applications to the abdomen and the use of opium. Adrenalin and other astringent drugs are useless.

Small doses of phosphate of soda seem to produce frequently an improvement in the general symptoms:

R.	Sod. phosphat.....	3iii
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M. Sig. One teaspoonful in water three times a day.

LOCOMOTOR ATAXIA (See Tabes).

LUDWIG'S ANGINA.

Early and free incision should be made to evacuate pus, relieve tension, and so to lessen the danger of suffocation. For the œdema of the glottis tracheotomy may be necessary. Tonics and nourishing food should be given to support the strength of the patient while recovering from the ptomaine poisoning.

LUMBAGO.

Patients subject to this disease should dress warmly and avoid overheating and exposure.

Local treatment. Fomentations, flannel binder, ether spray, ice blister, mustard, camphor, capsicum, turpentine, hot iron, needle passed into erector spinæ muscle, high frequency electric current followed by vibration massage, belladonna or menthol co. plaster.

Liniments may be applied such as:

R. Chloral. hydrat.

Camphor.

Ol. cajuput.....āā..... 3i

Ol. gualtheriæ..... 3ss

Lin. saponis.....q. s. ad.. 3iv

M. Sig.: Use three times a day.

Or:

R. Lin. ammon. N. F..... 3iv

Sig.: Use three times a day.

The benefit from liniments such as these is as much due to the rubbing as to the liniment itself.

Turkish baths, hot air baths, and hypodermic injection of morphine are also of service.

Internal treatment. The drugs used are: salicylates, aspirin, potassium iodide, guiacum, ammonium chloride. The following may be given:

R. Sodii salicylat..... 3iv

Tinet. cimicifuga..... 3i

Potass. iodid..... 3ii

Aquæ..... 3i

Ess. pepsin.....q. s. ad.. 3iii

M. Sig. One teaspoonful in very hot water every three hours.

Or:

R. Salicini..... 3ii

Kryofini 3ss

Pulv. Doveri.....grs. xxiv

M et ft. chart. No. xii.

Sig. One every three hours with hot water.

LYMPHADENOMA. (HODGKIN'S DISEASE, PSEUDO-LEUKÆMIA.)

The general nutrition should be maintained by regulating the diet and attending to hygienic measures. Tonics such as iron, strychnine and cod liver oil are of service. Bone marrow should be tried.

Of the drugs used arsenic is the most efficacious in diminishing the swellings and improving the condition of the patient. Three or four minims of Fowler's solution should be given well diluted, three times daily after meals. Increase the dose each week by one minim until the patient is taking 20 to 30 minims three times a day.

The Roentgen rays are also of great benefit in this disease. (See **X-Rays, Employment of.**) The rays are applied to the enlarged glands, the spleen, chest, elbows and knees. Care should be taken to avoid burns, and the organs of generation should be protected by an opaque screen.

LYMPHANGIOMA.

An elastic support will prevent the further dilatation of the lymphatic vessels. The masses may be extirpated if they are not too extensive. Appropriate precautions should be taken when rupture of the vessels is imminent.

LYMPHŒDEMA.

Elevation of the part, massage and wearing an elastic bandage are of service. In stubborn cases excision of the redundant tissue may be resorted to when the genitals are affected. In severe cases where the lower limbs are involved ligation of the main artery may be necessary in order to cut off the vascular supply.

MALARIA, PERSONAL PROPHYLAXIS.

Those who live in a malarious locality should take mechanical and medicinal measures to avoid the disease. The mechanical measures consist in

precautions to avoid being bitten by mosquitoes. Mosquito bars should be used on the beds, and holes in them carefully repaired. A mosquito net improperly used is as bad as none at all. Wear a hat provided with a mosquito net as well as gaiters for the ankles, and gloves for the hands if one is obliged to expose himself among infected mosquitoes. Dwellings should be located on as high ground as possible and away from stagnant water. Doors and windows should be screened with netting. Since the mosquito is much more active about sunset, and at night, it is best to remain indoors at those times if possible.

The medicinal measures consist in the use of daily doses of about six grs. of quinine.

MALARIA, PUBLIC PROPHYLAXIS.

This consists in the reduction of mosquitoes by drainage or other treatment of their breeding waters. Permanent works of drainage should be established, pools, ponds, and marshes should be filled up. An oily film over the surface of water containing the larva or pupa of the mosquito prevents them from getting air and thus kills them. Coal oil is the best and cheapest for this purpose. Drainage, or coal oil, or both, have nearly exterminated the mosquito at Havana, Oyster Bay, Long Island, Port Swettenham, and Ismailia.

MALARIA, TREATMENT OF.

During the paroxysm the patient is to be put to bed. In the cold stage he should be made as comfortable as possible with warm coverings and hot drinks. In the hot stage he should be lightly covered and given cold sponging or tub baths and cool drinks. For the fever give:

R. Antipyrinæ.....grs. x
Ft. chart. No. i.

Sig. Give one powder and repeat in an hour if required.

When the patient is perspiring freely, wiping his skin with hot flannel gives relief.

The great and reliable remedy in this disease is quinine, but before beginning this drug the bowels should be cleaned out. Give:

R. Hydrarg. chlor. mit..... grs. xii

Sacchar. lact..... grs. xii

Extr. colocynth..... grs. xii

M. et ft. chart. No. xii.

Sig. One every hour until purgation is produced.

In ordinary intermittent malarial fever the total amount of quinine required per day to cut short the paroxysms is from 15 to 20 grs. This may be given in the following way: A four grain dose immediately after the close of the hot stage; a five grain dose five hours later; and the remaining six (to eleven) grains, six hours before the time for the next paroxysm. This division of the dosage is not only convenient, but avoids the slight toxic symptoms (tinnitus, deafness, nausea, etc.), which are apt to follow single large doses. Administering the largest dose six hours before the expected paroxysm impregnates the blood for about an hour before sporulation takes place.

The quinine may be given in solution, in pill form, or in capsules. The solution is more readily absorbed than the other two forms, but the bitter taste is an objection. Compressed tablets and stale pills are likely to pass through the body undissolved.

In aestivo-autumnal fever the patient should be treated as in ordinary intermittent fever, but larger doses of quinine (30 to 40 grains per day) are usually necessary, and the patient needs more careful nursing. Vomiting may interfere with the administration of quinine by the mouth and it may be necessary to give it hypodermically in the form of the hydrochlorate. Enemata of quinine dissolved in starch water are also useful in these conditions.

In pernicious malarial fever the most energetic

treatment is necessary. The patient should be brought as quickly as possible under the influence of quinine by injecting at once into the tissues of the buttock the following solution:

R.	Quininæ hydrochloridi.....	grs. xv
	Sodii chloridi.....	gr. i
	Aquæ destillat.....	3iiss

This injection should be done under strict anti-septic precautions to avoid the formation of abscesses.

Malarial cachexia. In this condition Warburg's tincture in half ounce doses three times a day is of great service. Here iron and arsenic are of great value in addition to the quinine:

R.	Quininæ hydrochlor.	5ii
	Ferr. et potass. tartrat.....	3ss
	Arseni trioxidi.....	gr. i
	Aquæ destillatæ.....q. s. ad.	3iv

M. Sig. One teaspoonful after each meal.

MALTA FEVER. (MEDITERRANEAN FEVER, PHILIPPINE FEVER.)

Prophylaxis. Isolate patient and treat him in a special ward as in other infectious diseases. Disinfect clothing, bedding and excreta. Attend to the proper sanitation of the house.

Treatment. Support the strength and combat the symptoms as they arise. Give a mild laxative if constipation is present, morphine and hydrocyanic acid to relieve the nausea and vomiting. Tinct. ferr. perchlor. may be given for the diarrhoea, ergot to arrest haemorrhage, and hot fomentations for the orchitis. If hyperpyrexia threatens immerse the patient for ten minutes in a cold bath at a temperature of 68° F.

Careful nursing and a light diet (milk, beef tea, chicken jelly, etc.) are of the utmost importance.

MANIA, ACUTE. (DELIRIOUS, TOXIC, TRAUMATIC, POST-PARTUM.)

Best treated in a special hospital, although an

undeserved stigma is attached to this method of treatment. If the patient is treated at home, careful and competent nurses are essential.

Frequent, and, if necessary, forced feeding is of the utmost importance. Liquid food with chopped meat may be given, and small doses of alcohol may be necessary to induce sleep. If the insomnia is stubborn give bromides, trional or sulphonal. (See *Insomnia*.) To secure rest, forced detention in bed by mechanical restraint may be necessary. Manual restraint is not advisable. A sheet or some bed-harness is much to be preferred.

When the stage of exhaustion is over, tonics such as iron, strychnine and phosphorus are necessary.

In case of cerebral congestion the following powder may be given:

R. Elaterini..... grs. $\frac{1}{8}$
Sacchari lactis..... grs. vi

M. ft. chart. No. iii.

Sig. Place one on tongue and repeat in two hours unless free purgation.

In violent cases when milder remedies fail give:

R. Morph. sulphat..... grs. iii
Hyoscinæ hydrobrom..... gr. $\frac{1}{8}$
Sacchari lactis..... grs. xx

M. ft. caps. No. xii.

Sig. One capsule by mouth. Repeat in one hour if necessary. This will usually quiet excitement and induce sleep.

MASSAGE, METHOD OF APPLYING.

Massage stimulates the peripheral nervous system, increases the tone of the circulatory system, helps metabolism, develops and exercises the muscles and soothes the central nervous system.

The masseur should have clean, soft, warm and dry hands. Massage should not be practiced for an hour after a meal, and if given in the daytime, should be followed by an hour's rest.

Massage is of distinct advantage in neurasthenia, writer's cramp and allied affections, chorea, neuralgia, neuritis, obesity, dry symmetrical gangrene, sprains, fractures, and displaced semilunar cartilages.

It is contra-indicated in fever, enlarged veins, tumors, and pregnancy. If as sometimes but rarely happens, it irritates rather than soothes, then it should be discontinued for a time.

The movements of massage are: Effleurage or the gentle surface stroking of the part, which quietly starts the circulation before the more vigorous rubbing begins. Massage à friction, which make a firmer and deeper pressure-rub than effleurage. Petrissage is a very deep kneading of the part and completes what has been begun by the two preceding. Tapotement, or tapping in a rapid, vibratory manner with the balls of the fingers of one or both hands held gently closed, similar to the position of holding a pen.

The patient is first asked to relax all his muscles and to lie on his right side. Manipulations are begun on the left foot, toes, ankle, thigh, hip, and buttock, in turn. The patient then turns on the opposite side and the right side is rubbed just like the left.

Next the patient lies on his back and the fingers, forearm, arm and shoulder are given the long sweeping effleurage, followed by friction, petrissage and tapotement.

The patient lies next on his abdomen on a pillow. The long series of strokings down the vertebral gutters are made alternately with the fingers of each hand spread on either side of the spinous processes. Then comes a spreading movement from the spines outward with the balls of both thumbs; next a firmer petrissage with both hands; followed by that motion with the palms of both hands alternately run down either side of the spinal column, giving a delightful sensation; while the final effleurage finishes and the patient is asked to turn on his back.

The chest movements consist of a firm stroking, following the ribs from the sternum out and down; and of firmer petrissage with the balls of both thumbs. Next the thighs are flexed on the abdomen, and legs on thighs in order to relax the abdominal walls. Effleurage is followed by thorough kneading begun over the small intestine, working with both hands in a spanning-like manner. Then start at the head of the colon, and work along the ascending, transverse, and descending portions, one hand following the other in rotary motions. This with effleurage usually cures constipation. The face, head and neck are not rubbed in ordinary work, but if requested this is done by a series of strokings and kneading movements in the direction of the venous circulation. In all movements the greater pressure should be from the periphery toward the heart.

MASTITIS. (INFLAMMATION OF BREASTS.)

Prophylaxis. This condition can be prevented in most cases by careful attention to fissured nipples. They should be kept very clean during lactation. A saturated solution of boric acid should be used for that purpose. As soon as a fissure is noticed apply a nipple shield to the breast until healing takes place. Compression of the nipple by the clothes or corset should be avoided. Olive oil may be applied to the nipple between the times of suckling, and the child's mouth should be inspected regularly and if it is not perfectly healthy it should be cleansed with boric solution. Milk engorgement should be prevented by suitable methods.

Treatment. When mastitis threatens remove the child from the affected breast and withdraw the milk with a breast-pump or by massage. Keep the patient at rest in bed and apply ice-bags or an ice-coil over the inflamed area protected by a layer of flannel. A compress soaked in lead and opium lotion and covered by oiled silk gives some relief.

The breast should be supported when the patient sits up by means of a binder and cotton wool. Free movements of the bowels should be secured by salines and the patient put on a light dry diet, to restrain the secretion of milk.

Pus should be evacuated as soon as it is detected; do not wait until the mammary abscess "points." To avoid cutting milk ducts and veins the incision should be radial, i. e., in line with these vessels. In the absence of other indications, the free incision is best made below and to the outer side. A local anaesthetic such as cocaine or ethyl chloride is usually all that is necessary, but sometimes a general anaesthetic like nitrous oxide may be advisable. Gauze packing or drainage tubes may be used to obtain free drainage, after irrigating the cavity with hydrogen peroxide or other mild antiseptic solution.

MASTURBATION.

If the patient is a child look for and treat the cause, e. g., adherent prepuce, phimosis, or very long foreskin.

In boys about the age of puberty with long foreskin, circumcision not only interrupts the pernicious habit for a time, but removes a constant source of irritation.

In girls remove any pathological condition of the genitals which may be present, and insist on absolute cleanliness of these parts.

In all cases moral treatment should be tried and if this fails, tie the patient's hands when in bed, do not let him sleep alone, and fasten a hard body over spine to prevent him from lying on his back during sleep.

Free purgation, the removal of thread-worms or of any irritation or itching of the anus and genitals are often of service. The patient should be recommended to take free open air exercise, cold baths and plain unstimulating food. The preponderant

attention paid to athletics in many schools and colleges has this to recommend it that it often acts as a prophylactic against masturbation.

In some cases of abnormal sexual desire the following may be given:

R.	Sodii iodid.....	ʒ ii
	Sodii bromid.....	ʒ iv
	Tinet. lupulin.....	ʒ iv
	Tinct. hyoscyam.....	ʒ iv
	Syr. zingiber.....	ʒ i
	Aquæ camphorat.....	ʒ vi

M. Sig. A tablespoonful in water after each meal.

When prostatorrhea results from the masturbation give:

R.	Extracti ergotæ.....	grs. xxiv
	Extracti nuc. vomic.....	grs. vi
	Extr. gentianæ.....	grs. xxiv

M. et ft. pil. No. xxiv.

Sig. One pill three times a day after meals.

If leucorrhea results give the following astringent lotion:

R.	Aluminis.....	ʒ ii
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Sig. A tablespoonful in a quart of water as vaginal douche twice a day.

In all cases of masturbation occurring at the age of puberty, open air exercises and games should be insisted on. These not only quicken the circulation of the blood and cause more oxygen to be inhaled, whereby the impurities of the blood are oxygenated and destroyed, and removed by the excretory organs of the body, but they also check morbid desire and sensations by the expenditure of superfluous energy, which ensures purity of life.

MEASLES, PROPHYLAXIS.

It is a great mistake for parents to wilfully allow their children to expose themselves to measles on the ground that every one must contract the disease and that it is less likely to prove serious in

childhood than in adult life. It is true that measles is so intensely contagious that nearly all persons are attacked by it before adolescence. But serious results so often follow the disease that wilful exposure is never justified. Measles is extremely contagious during the prodromal stage when accurate diagnosis is often impossible and this increases the difficulty of prophylaxis. The patient should be isolated and other children should be removed from the house. These should be kept from associating with other children for at least two weeks in order that the disease if contracted, may develop.

Only the attendants should be allowed to enter the sick room. All soiled linen should be soaked in solutions of carbolic acid or corrosive sublimate and boiled separately. During the eruptive stage the whole body should be oiled once or twice daily to lessen the dissemination of the contagion. The contagion of measles is of feeble vitality and therefore quarantine need not be kept up longer than about a month.

In the military service the prophylaxis of measles is of much greater importance than in civil life for the disease among soldiers is always attended with danger, especially in the field where the patients are exposed to inclemencies of the weather. Measles is sure to occur among newly raised rural troops. Special preparations should be made to meet it for the contagion spreads so rapidly that large numbers will sicken simultaneously.

MEASLES, TREATMENT OF.

The patient should be put to bed in a well-ventilated but warm room which ought to be moderately darkened. Two weeks at least should be spent in bed. During the period of fever the diet should be fluid and should consist of milk, soups, broth, junc-
ket, fruit juices, eggs and gruels. Water should be given at frequent intervals.

The burning and itching of the skin may be relieved by daily inunctions with cold cream or cocoanut butter or by sponging with tepid water to which a little sodium bicarbonate has been added. The following prescription may be given:

R.	Phenolis.....	gtt. viii
	Olei olivæ.....	ʒ viii

M. Sig. Anoint the body several times a day.

The bowels should be kept open at the beginning of the disease by fractional doses of calomel followed by a saline and they should be kept open throughout the disease by means of laxatives.

The skin and the kidneys should be kept active by alkaline diuretics. The following may be given as a febrifuge and diuretic:

R.	Spiritus ætheris nitrosi.....	ʒ iv
	Syrupi.....	ʒ iv
	Liquoris potassii citratis.....q. s. ad.	ʒ viii

M. Sig. One teaspoonful in water every two hours.

For the conjunctivitis apply cloths moistened in cold water or by dropping a few minims of saturated solution of boric acid into the eyes at intervals. The eyelids may be prevented from sticking together by smearing their edges with vaseline. If the conjunctivitis becomes purulent, give the following eye-drop:

R.	Argyrol.....	grs. iv
	Aquæ destillatae.....	ʒ i

M. Sig. Instil several drops into the eye every two hours.

Since the middle-ear frequently becomes involved by extension from the nasal cavity and the throat, these parts should be frequently sprayed with dilute liquor antisepticus.

When there is bronchial catarrh, give an expectorant such as ammonium chloride:

R.	Ammonii chloridi.....	grs. xlvi
	Syrupi.....	ʒ iv
	Mucilagin. acae.....q. s. ad.	ʒ viii

M. Sig. One teaspoonful in a little water every two hours For a child two to six years of age.

Or the following sedative might be given:

R.	Potass. citrat.....	5ii
	Tinct. opii camphorat.....	5iii
	Glyeerini.....	5i
	Aquæ.....q. s. ad.	5iii

M. Sig. One teaspoonful every two hours. For a child of three years.

During convalescence cod liver oil and tonics like iron and strychnine are indicated, and a change of climate is advisable, preferably to a high altitude where slight humidity and a mild temperature prevail.

MELANCHOLIA.

Rest in bed, with frequent, and, if necessary, forced feeding, are essential. In mild cases diversion may be of benefit, but in severe cases it is not advisable.

Mild laxatives or enemata, warm baths and massage are of service. For the insomnia trional may be given, or:

R.	Spiritus chloroformi.....	5iv
	Potass. bromid.....	5ii
	Syrupi.....	5iv
	Aquæ.....q. s. ad.	5iii

M. Sig. Two teaspoonfuls in water at bedtime.

For the great fear so often present give 5 minims of tincture of opium three times a day.

Vigilant nursing is absolutely essential because of the danger of suicide.

When the patient is anaemic and there is impairment of appetite, give:

R. Tinct. ferr. chlor.

Tinct. quassiæ.....aa 5iv

M. Sig. Twenty drops in water through a glass tube, after each meal.

When the patient is debilitated, give:

R.	Olei phosphorati.....	m. xxiv
	Olei morrhuae.....	5ss

M. Pone in caps. No. xxiv.

Sig. One capsule two hours after meals.

The following may be given to induce sleep:

R.	Hyoscinæ hydrobromidi.....	gr. $\frac{1}{8}$
	Camphoræ monobromatæ.....	5 <i>i</i>

M. ft. caps. No. xv.

Sig. One capsule at bedtime; repeat in six hours if required.

MENINGITIS, CEREBRO-SPINAL.

Prophylaxis. Proper ventilation, drainage and general sanitation will help to prevent epidemics. The organism which causes this disease undoubtedly enters the body through the nose; for this reason it is best during an epidemic to spray the nostrils of all children affected with catarrhal trouble with some such antiseptic solution as liquor antisepticus or Dobell's solution. The composition of the latter solution is:

R.	Acid. carbolic. cryst.	gr. xxiv
	Sod. borat.	
	Sod. bicarb.	5 <i>ii</i>
	Glycerini....	5 <i>ss</i>
	Aq. destillat.	q. s. ad. Oi

Sig. Use three times a day with atomizer.

Treatment. Isolate the patient in a well ventilated room, bandage his eyes to relieve the photophobia, and elevate the head of his bed. Maintain the nutrition of the patient with milk, broths and gruels. Relieve the pain by wet cups to the back of the neck, ice-bags along the spine, and by cauterizing the nape of the neck.

Give a hot bath (104° F.) lasting from 15 to 20 minutes, once or twice a day, to relieve pain and lessen restlessness and delirium. Lumbar puncture relieves the symptoms due to pressure. When the pressure symptoms are marked withdraw 8 to 15 drachms; when they are slight only 5 drachms should be withdrawn.

Intraspinal injections of lysol (1%) may also be tried.

The bowels should be regulated in the course of the disease by calomel, salines or enemata. Allow plenty of drinking water to eliminate toxins by the kidneys.

If the nose and throat are inflamed, spray and irrigate with mild alkaline solutions, e. g., liquor antisepticus N. F., and give a mouth-wash:

R. Sol. potass. chlorat alkalinus ʒ viii

Sig. Use as mouth-wash every two hours.

If there is difficulty in swallowing, feed by stomach tube or nasal tube or by rectum.

Sucking cracked ice or the application of cold to the epigastrium relieves the vomiting. Give antipyrine to relieve the headache and chloral per rectum or by inhalation for the convulsions.

For the cardiac weakness of the later stages, give alcohol, ammonia, or hypodermic injections of camphor in oil. High hot saline irrigations per rectum not only benefit the cardiac weakness, but by their diuretic action help to eliminate toxins through the kidneys.

In chronic cases with meningeal thickening, give potassium iodide in 5 to 10 gr. doses every three hours, or syr. hydriodic acid one teaspoonful four times a day in water to induce absorption.

The death rate from this disease has been reduced at least 50 per cent in the last two years by the use of anti-meningococcus serum. It should be injected directly into the spinal canal, after withdrawing as much cerebro-spinal fluid as the amount of the serum to be injected. The earlier the treatment is started the better the prognosis. If used within the first three or four days the mortality is not more than fifteen to eighteen per cent.

The first injection should consist of from 10 to 30 c. c. for a child under one year, and 30 to 45 c. c. for an adult. The injections should be repeated at least four times at twenty-four hour intervals. If there is no recurrence of the symptoms after that time then

it will be unnecessary to make further injections. The best criterion is the cerebro-spinal fluid, if no meningococci are present and the degenerated leucocytes have been replaced by normal ones, we are certain that no further injections are needed.

Within twenty-four hours after the first injection, such symptoms as headache, coma, fever, pallor of the face, delirium and insomnia, rapidly clear up.

MENINGITIS, TUBERCULOUS.

Prophylaxis. General measures for the prevention of tuberculosis. Every influence which tends to develop the nervous system at the expense of the digestive and muscular systems should be eliminated.

Treatment. This is merely symptomatic and palliative. Place the patient in a darkened room and exclude all sources of cerebral excitement. Apply an ice-cap to the head and upper part of the spine, leeches to the temples, ears, and nape of the neck, and warmth to the extremities. Give the following calomel purge at once:

- | | |
|--------------------------------|----------|
| R.
Hydrarg. chlor. mit..... | grs. v |
| Sacchar. lactis..... | grs. xxx |
| M. et ft. chart. No. xii. | |

Sig. One powder every hour till free purgation, then one every two or three hours during the first twenty-four hours of the disease.

For the headache, restlessness and convulsions give morphine hypodermically:

- | | |
|-----------------------------|---|
| R.
Morphinæ sulphat..... | gr. iss |
| Aquæ destillat..... | 3ii |
| M. Sig. | Two to ten drops, according to age and idiosyncasy every two to four hours. |

Or the following may be given by the mouth:

- | | |
|----------------------|-----------|
| R.
Antipyrin..... | grs. xxx |
| Morph. sulphat..... | gr. i |
| Syr. limon..... | 3vi |
| Aq..... | q. s. ad. |
| | 3ii |

M. Sig. Half to two teaspoonfuls, according to age, every two hours.

For convulsions or for insomnia the following may be given to a child of three to four years:

R.	Chloral. hydrat.....	grs. xxx
	Sodii bromid.....	ʒ ii
	Sodii iodid.....	ʒ iii
	Syr. aurant.....	ʒ i
	Aquæ..... q. s. ad.	ʒ iv

M. Sig. One teaspoonful in water every two or three hours.

MIGRAINE. (MEGRIM, SICK HEADACHE.)

If possible remove cause, e. g., errors of refraction, diseased teeth, worry, etc. Regulate the diet. Patient should avoid sugar and red butcher meat. Allow plenty of milk, fish, and white meat. Alcohol, tobacco, tea and sexual excesses require regulation. Attend to bowels.

Give phenacetin in 20 gr. doses as soon as attack occurs. If no relief is obtained give another dose at end of an hour. If this still does not give relief, give 20 grs. more in an hour but no more. To prevent the recurrence give:

R.	Sodii salicyl.....	ʒ iv
	Liq. potass. arsenit.....	ʒ i
	Essenc. pepsin..... q. s. ad.	ʒ iii

M. Sig. One teaspoonful in water three times a day.

MILK, EXCESSIVE SECRETION OF (See Galactorrhea).

MITRAL INCOMPETENCY (See Endocarditis, Chronic).

MITRAL STENOSIS (See Endocarditis, Chronic).

MORPHINE HABIT.

Prevention. All prescriptions containing morphia should be marked "not to be refilled without the order of the physician." Do not put a hypodermic syringe into the hands of a patient to use in case of pain or sleeplessness.

Treatment. Isolate the patient in an institution where careful watching is obtainable. Do not withdraw the morphine suddenly. Diminish it gradually until at the end of a week none at all is given. Stimulate the heart if weak, by ammonium, strychnine, digitalis or caffeine. Do not give alcohol or cocaine. Relieve insomnia by bromides, sulphonal (20 grs.), or veronal (15 grs.). Avoid the use of chloral.

R. Sulphonal..... 3ii

Ft. chart. No. vi.

Sig. One at bedtime.

Control mental excitement by baths, warm or cold.

MOSQUITO BITES.

Oil of lavender or oil of tar rubbed on the skin, or sponging the surface with infusion of quassia is a protection. Now that mosquitoes are known to be carriers of malaria, yellow fever, filaria, etc., the importance of a good prophylactic against mosquito bite is obvious.

A mixture of equal parts of camphor and chloral, with menthol dissolved in the mixture gives local relief from the itching and pain of insect bites. Weak liquor ammonia and carbolic oil are also good remedies.

MULTIPLE NEURITIS (See Neuritis Multiple).

MUMPS. (PAROTITIS.)

Rest in bed. Isolation for three weeks.

The swelling and pain are best combated by:

R. Tinct. opii..... 3i

Ol. camphor..... 3i

M. Sig. Rub on swollen gland and cover with cotton batting.

Hot poultices are frequently of great service in relieving pain.

For a child 3 to 6 years old give at the beginning of the disease:

R. Hydrarg. chlor. mit..... grs. ii
Sacchari lact..... grs. xii
Extr. colocynth..... grs. ii

M. et ft. chart. No. xii

Sig. One every three hours.

After the bowels have been thoroughly evacuated the following may be given:

R. Spts. æth. nitros..... 5ii
Potass. citrat..... 5iii
Tinct. aconit..... m. iv
Syrup. tolu..... q. s. ad. 5iv

M. Sig. One teaspoonful every two hours.

In adults the disease is sometimes very severe causing orchitis or ovaritis. If the former, suspend the testicles and make applications of:

R. Lotio plumb et opii..... 5vi
Sig. Apply hot with gauze every two hours.

When the inflammation is beginning to subside use:

R. Ungt. hydrarg..... 3iii
Ungt. petrolat..... q. s. ad. 3i

M. Sig. Apply thoroughly three times a day.

The diet should be liquid because the mouth can only be opened with difficulty.

Keep the mouth clean with:

R. Liq. antiseptic. alk. N. F..... 5iv

Sig. One teaspoonful in a wineglassful of hot water for a mouth-wash every three hours.

Mumps rarely if ever go on to suppuration.

MUSCÆ VOLITANTES (See Floating Bodies Before the Eyes).

MYELITIS.

During the acute stage the patient should have absolute rest in bed for at least two weeks. A water or air bed should be used and the patient guarded against bed-sores. His position should be frequently changed, the parts subjected to pressure kept absolutely clean, powdering with talcum, tannic

acid or lycopodium, and bathing with alcohol and astringent solutions. Blisters and other forms of counter-irritation should be avoided on account of the danger of bed-sores. Warm baths (85° F. to 90° F.) may be given daily and lasting for about ten minutes. Ice-bags applied to the spine, and the employment of galvanism with the electrodes applied to the vertebral column over the seat of the lesion are often of benefit. Pain and local congestion may be relieved by leeches or by applying wet or dry cups to the spine. If there is retention of urine systematic catheterization will be necessary with the strictest antiseptic precautions. Cystitis is very liable to develop when the catheter is used and the tendency should be met by daily irrigating the bladder with a solution of boric acid and the internal administration of salol and urotropin (5 to 10 grs. each) three times a day. At the beginning of the disease the bowels should be kept open with laxatives, but in the later stages the bowels should be opened by irrigation rather than by purgatives. Massage is of benefit in exercising the muscles, improving the circulation, and preventing wasting of the muscles.

In the chronic stage the contracted limbs may be straightened by mechanical appliances or by tenotomy. In compression myelitis the pressure on the cord should be relieved by proper orthopædic apparatus.

MYOPIA.

Rest eyes from near work, protect from exposure to too great light, regulate the general health. Keep eyes under full influence of atropin for two weeks in dark room and then allow the patient to use dark glasses when he goes about. Prescribe concave glasses of such a strength as to correct the vision accurately for distance. Correct any astigmatism which may be present as well.

MYXŒDEMA.

Myxœdema and sporadic cretinism (the infantile form of myxœdema) are due to absent or defective thyroid secretion, and the myxœdematous condition can be removed by thyroid treatment:

R. Tabellas glandulæ thyroideæ siccæ....grs. v

Sig. One tablet once daily, to be increased.

The dry extract in the form of tablets is an active and reliable preparation; the activity of the drug is not impaired by keeping; the dose can be conveniently regulated and consequently it is a very convenient preparation.

Most patients affected with myxœdema are very susceptible to the action of the thyroid extract; and since it is rarely if ever advisable to produce the full physiological effects of the remedy (acute thyroidism) a small dose should be at first administered as in the above prescription. If this preliminary small dose is insufficient to produce "reaction" and improvement, the dose should be gradually but cautiously increased.

It is advisable to keep the patient in bed during the first three or four weeks of the thyroid treatment, and the diet during that stage should consist of milk, fish, and white meat.

The immediate effects of the thyroid treatment are: rapid disappearance of the myxœdematous swelling; loss of weight; increased liveliness and activity; a rise in temperature and pulse; disappearance of the feeling of cold; improvement in the nutrition of the skin and its appendages; growth of hair, etc.

Too large doses of the extract are liable to produce acute thyroidism—rapid action of the heart, palpitation, great prostration, profuse sweating, great and rapid loss of weight, anaemia, furred tongue, vomiting, diarrhoea, headache, a feeling of general discomfort, etc.

NAIL MATRIX, INFLAMMATION OF (See Onychia).

NASAL HEMORRHAGE (See Epistaxis).

NEPHRITIS, ACUTE PARENCHYMATOUS. (ACUTE DIFFUSE NEPHRITIS, ACUTE BRIGHT'S DISEASE.)

It is absolutely necessary to put the patient to bed in a warm room and to keep him away from worry or excitement. The object to be pursued may be expressed in the word "elimination." This is accomplished through the intestines, skin and kidneys.

If there is suppression of urine apply dry cups to the loins and follow this with large hot linseed poultices.

Elimination through the kidneys is best encouraged by purgation. Salines act best. Give one tablespoonful of Epsom salts, or a bottle of citrate of magnesia, or a tablespoonful of bitartrate of potassium in hot water on arising.

Elimination through the skin should be accomplished by the administration of the fluid extract of jaborandi, 10 to 15 drops every two hours. Pilocarpine in doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain, should react still more promptly. Hot baths are also of benefit in assisting the skin to get rid of its poisons.

Elimination through the kidneys is effected by the use of diuretics, especially in case of dropsy and scanty urine.

The best diuretic is digitalis and by far the best method of administering it is the infusion. It ought to be given in tablespoonful doses three or four times a day, depending upon the severity of the case. After a week a change may be made to the tincture of digitalis which may be given in doses of 15 to 20 drops three times a day. It is best to give the digitalis alone at first, later on it may be combined with potassium citrate, potassium acetate or potassium bitartrate in the dose of 20 grains, three times a day, thus:

R.	Tinct. digitalis.....	5vi
	Potass. citrat.....	5vi
	Potass. acetat.....	3iv
	Aquæ..... q. s. ad.	3iii

M. Sig. A teaspoonful in a glass of water three times a day.

Trousseau's diuretic wine has been in general use for many years and its effects are good. The formula for this wine is:

R.	Juniper. contus	5x
	Pulv. digital.....	5ii
	Pulv. scillæ.....	3i
	Vin. Xericci.....	Oi

Macerate for four days and add :

Potass. acetat.....	5iii
---------------------	------

Express and filter.

M Sig. One tablespoonful three times a day.

The patient should be encouraged to drink plenty of water. The diet should be light and easy to digest. Milk is by far the best food, it may be given raw, peptonized or diluted with lime water, Vichy or Seltzer.

Animal food should be avoided so as not to throw too great a strain on the kidneys in eliminating the nitrogen. Beef tea and beef extracts should for this reason be strictly avoided.

For the treatment of convulsions accompanying nephritis see **Uræmia**.

NEPHRITIS, CHRONIC INTERSTITIAL.

The diet should be very carefully regulated. Nitrogenous foods should be avoided as much as possible. Strong alcoholic drinks like brandy, whisky, champagne, sherries and port should be avoided. Light drinks such as red wines, lager beer, and porter may be allowed in small quantities. Alkaline mineral waters such as Vichy, Kissingen and Vals may be taken in abundance. The warmth of the body should be maintained by woolen garments. Wetting the body in the rain should be

avoided. The feet should be kept dry and rubbers worn. Sea bathing should be forbidden. Residence in a warm climate is of considerable benefit in some cases. Mental and bodily fatigue should be avoided. A warm bath daily and an occasional Turkish bath may be taken.

The treatment by drugs must be very carefully considered. Large doses of iron do harm, but it may be given in small doses when there is anaemia:

R. Basham's mixture..... 3vi

Sig. One dessertspoonful three times a day.

Diuretics are not indicated unless the flow of urine should become scanty. The bowels should be carefully regulated by a daily dose of half an ounce of Epsom salts.

High arterial tension is best regulated by nitro-glycerin:

R. Tabell. nitroglycerin..... gr. $\frac{1}{100}$
No. 1.

Sig. One every three hours.

Complications must be treated as they arise, e. g., pericarditis, pleurisy, pneumonia, endocarditis, etc.

If dyspepsia is present give:

R. Acidi hydrochlor. dil..... 3iv
Pepsini..... 3i
Aquaæ..... 3i
Syr. aurant. cortic..... q. s. ad. 3iii

M. Sig. One teaspoonful in water after each meal.

If the patient is troubled with insomnia give sulphonal, trional, chloral and bromides. (See **Insomnia**.)

If uræmia occurs it should be treated according to the directions under that heading. (See **Uræmia**.)

There is no known method of removing the interstitial growth of connective tissue. Iodide of potassium in long-continued small doses (5 grains every 4 hours) may be tried.

Recently the operation of decapsulation of the kidneys has saved some moribund cases of nephritis.

Some were completely cured, others considerably benefited. The cause of such improvement is probably the freer circulation in the kidneys upon the removal of the constricting capsule.

NEPHRITIS, CHRONIC PARENCHYMATOUS. (CHRONIC DIFFUSE NEPHRITIS.)

When this disease is not treated the patient usually goes on from bad to worse, whilst with appropriate treatment the fatal ending can sometimes be long delayed.

The indications in the treatment are to keep up the patient's strength by improving the quality of the blood, and to get rid of the poisonous materials that accumulate in the blood.

The diet should consist of nourishing food, but articles should be chosen which have a small percentage of nitrogen. Milk is the ideal food; under its use the most dangerous symptoms frequently abate, as albuminuria, dropsy, etc. An adult should use 2 to 3 quarts of milk per day. It should be taken in quantities of 6 or 8 ounces every two hours. It may be diluted with Vichy, Seltzer, Apollinaris, etc.

Rest in bed, even if not continuous, is of importance in reducing oedema. The patient should be protected with woolen underwear in order to avoid chilling of the surface of the body.

The patient's blood should be sustained with iron, quinine, and strychnine. Iron is the most important drug. It should not be given in excessive doses. Basham's mixture has been the standard preparation of iron in nephritis for years. Its formula is:

R. Tinct. ferri chlorid.....	3ii
Acid. acet. dil	3ii
Liq. ammon. acetat.....	3ii
Syr. simplic.	
Aquæ.....:.....āā. q. s. ad.	3vi

M. Sig. A dessertspoonful in water, twice a day.

The following is as good as the above:

R. Tinct. ferr. chlorid.....	3ii
Spt. æther. nitros.....	3iv
Strych. sulph.....	gr. ss
Infus. calumbæ.....q. s. ad.	3iii

M. Sig. One teaspoonful in water three times a day.

The dropsy should be treated in the same manner as indicated under acute nephritis, viz., hot baths, jaborandi, pilocarpin, saline laxatives and purgatives, etc.

In chronic nephritis there is a retention of chlorides in the blood. Frequently the dropsy can be retarded by the strict withdrawal of sodium chloride from the diet.

For the dietary, see **Albuminuria, Diet in.**

NEPHROLITHIASIS (See Renal Calculus).

NETTLERASH (See Hives).

NEURALGIA.

Correct any astigmatism, or error of refraction of the eyes; carefully examine every tooth, and treat, if present, gout, syphilis, rheumatism, anaemia or malaria. Good hygienic conditions should be secured and excessive lactation, sexual excesses, overwork, emotional conditions, and alcoholism should be avoided. A full diet with milk, cod liver oil, the Weir Mitchell rest treatment, change of climate, massage and hydrotherapy are of the greatest value.

As local measures for the pain, pressure on tender points, blisters, sinapisms, the cautery, acupuncture, and injections of cocaine should be tried. Menthol, camphor-chloral (equal parts) and a liniment like the following are of some value:

R. Tinct. aconiti	
Tinct. chloroformi	
Tinct. belladonnæ.....ââ	3ii
Liniment. saponis.....	3iv

M. Sig. Rub in thoroughly three times a day.

Iron, strychnine and phosphorus are of value in anaemic patients; arsenic and quinine in malaria and trifacial neuralgia.

Nerve-stretching is of some value in neuralgia on account of its effect in diminishing the conducting power of the sensory fibers; the operation should be done under proper antiseptic precautions.

Electricity in the form of galvanism is often of service; one pole being applied near the nerve centers the other near the nerves of the affected part.

In surgical therapy, section, resection, or divulsion of the affected nerve has been successful in many cases, as also extirpation of the Gasserian ganglion in trigeminal neuralgia of an obstinate character.

Freezing the skin by ethyl chloride often gives good results:

R. Ethylum chloridum in tuba.

Sig. Use as spray for freezing painful area.

In severe sciatica the following injection may be given:

R. Morph. sulphat..... grs. iii

Atrop. sulphat..... gr. $\frac{1}{10}$

Aqua destillat..... 3iv

M. Sig. Inject 20 drops deeply into the region of the painful nerve.

In neuralgia of a superficial nerve the following inunction may be used:

R. Oleati veratrinæ..... 5iv

Sig. Apply a small quantity to the painful area by inunction. Large quantities must not be used lest absorption of the veratrine takes place.

Or:

R. Thymolis..... 3i

Camphoræ..... 3i

Alcohol..... 3i

M. Sig. Apply over painful area with a brush.

Any one of the following prescriptions may be given to relieve pain:

R.	Antipyrinæ.....	3ii
	Caffeinæ citratæ.....	grs. xii
	Potassii bromidi.....	3ii

M. pone in cachetas No. xii.

Sig. One cachet every four hours.

Or:

R.	Acetanilidi.....	grs. xii
	Camphoræ monobrom	3i
	Caffeinæ citrat.....	grs. vi

M. et ft. chart. No. xii.

Sig. One powder every three hours till relieved.

Or:

R.	Potass. bromidi.....	3ii
	Fluidextract. guaranæ.....	3i
	Syrupi aurantii cortic.....	3i
	Aquæ.....q. s. ad.	3iii

M. Sig. Shake the bottle. One teaspoonful in water every two hours.

Or:

R.	Crotonchloralis.....	3i
----	----------------------	----

Pone in capsulas No. xx.

Sig. One capsule every two hours until relieved.

Or:

R.	Tinct. aconit.
----	----------------

Tinct. colchic. sem.

Tinct. cimicifugæ

Tinct. belladonn. fol.....ää 3i

M. Sig. Six drops every hour until relieved.

For local use the following may also be given:

R.	Mentholis.....	grs. xlvi
	Cocain. hydrochlor.....	grs. xv
	Chloral. hydrat.....	grs. x
	Petrolati.....	3v

M. ft. ungt.

Sig. For local use three times a day.

Recently remarkable success has been obtained in the treatment of tic-douloureux by deep injections of alcohol directly on the nerve at its exit from the skull.

NEURASTHENIA.

Remove the cause. Treat the mind as well as the body. The patient should have pleasant surroundings, cheerful companionship, outdoor games, drives and other diversions. Physical exercise is of the utmost importance as it increases respiration, circulation, oxidation and elimination. Sun baths should be used as part of the treatment. The patient should be encouraged to make up his mind to get well. If the disease is due to chronic alcoholism, morphinism, etc., these conditions must first be treated. In women when the disease is due to derangements of the sexual organs, correct such conditions as displacements, sew up lacerations, etc. The patient should avoid the excitement, noise and worry of city life. All excesses in diet, alcohol, and sexual matters should be avoided. The more regular the habits the better.

The patient should have plenty of sleep. Massage in the morning, accompanied by a sponge bath and an alcohol rub are very refreshing. The cold douche may be employed after the patient is on the road to recovery. Electricity along the spine soothes the nervous system; the static or mild faradic current should be employed. Weir Mitchell's treatment should be employed in the worst cases. For insomnia the hot pack is very beneficial.

The patient should be put on forced feeding. The diet should consist of easily digested foods frequently administered.

Suggestion, simple or hypnotic, is often followed by a cure. Change of climate, change of scenery, sea baths, or a sea voyage are important adjuncts to treatment.

The drugs used in this disease are chiefly tonics. Symptoms as diarrhoea, anorexia or constipation must be treated. The following tonic prescriptions are indicated:

R.	Strych. sulphat.....	gr. $\frac{2}{3}$
	Zinci phosphidi.....	gr. iss
	Calcii glycerophosph.....	grs. lxxii
	Ferr. carb. mass.....	3ii
	Mangan. dioxid.....	grs. xii

M. et ft. caps. No. xxiv.

Sig. One after each meal.

Or:

R.	Liq. ferri peptonat. N. F.....	3viii
	Sig. One tablespoonful after each meal in water.	

The following may be given to stimulate the appetite:

R.	Ac. nitro-muriat. dil.....	3iv
	Elix. calisaya	3iss
	Elix. digestiv. co. N. F.....q. s. ad.	3iii

M. Sig. One teaspoonful in water before each meal.

NEURITIS, MULTIPLE. (POLYNEURITIS.)

Try to discover the cause and discontinue or remove it, e. g., alcoholism, plumbism, mercurialism, etc.

The treatment is the same in all cases. Rest in bed is essential. Give plenty of nourishing food, eggs, milk, soups, etc. If the patient is strong enough give a daily hot bath extending over 15 minutes.

Deformities should be prevented by putting on necessary braces to the paralyzed muscles.

Strychnine sulphate in $\frac{1}{6}$ grain doses every three hours should be given over a long period of time.

Systematic massage and electricity are also of importance.

Use morphine for the relief of pain. If deglutition is interfered with, the patient must be fed with a tube.

NEURITIS, OPTIC. (PAPILLITIS, CHOKED DISK.)

Look for and treat the cause as nephritis, syphilis, rheumatism and exposure to cold. If due to nephritis, treat by purgation, diaphoresis, and diuresis. (See **Nephritis**.)

If due to rheumatism give large doses of salicylates. (See **Rheumatism.**)

If due to syphilis push the anti-syphilitic remedies.

Locally, blood-letting by leeches, blisters, and atropine should be used.

NIGHTMARE.

When not due to cerebral congestion, haemorrhage, or paresis, nightmare may be prevented by light diet, attention to the digestive organs and avoidance of late meals and indigestible food. Camphor water or potassium bromide may be given before bedtime if the nightmare occurs habitually, or give for a child 5 years old:

R.	Sod. brom.....	ʒ iss
	Tinct. hyoscyam.....	ʒ ss
	Potass. brom.....	ʒ i
	Aquæ.....	ʒ i
	Syr. limonis.....q. s. ad.	ʒ ii
M.	Sig. One teaspoonful in water at bedtime.	

NIGHT-SCREAMING IN CHILDREN.

If round worms are the cause give:

R.	Santonini	grs. ii
	Hydrarg. chlor. mit.....	grs. ii
M.	ft. chart. No. ii.	

Sig. One powder night and morning after fasting.

If the screaming occurs in nervous children and is accompanied by unpleasant dreams or fright (night terrors) give for a child 5 years old:

R.	Potass. bromidi.....	ʒ ii
	Tinct. hyoscyami.....	ʒ i
	Syrupi.....	ʒ iv
	Aquæ.....q. s. ad.	ʒ iii

M. Sig. One teaspoonful in water at bedtime. The child should have a light diet and avoid indigestible food.

It may also be due to delayed dentition or to indigestion. If the latter give to a child 4 to 12 years old:

R.	Pulv. rhei	grs. xlviii
	Sodii bicarb.....	3 iss
	Taka diastase.....	grs. xxiv
	Carbo. ligni.....	grs. xii

M. et ft. chart. No. xxiv.

Sig. One every four hours

Nurses and older relatives should be warned not to tell ghost stories and horrible tales.

(See also **Nightmare.**)

NIGHT SWEATS.

Treat the cause, change the night-clothes if wet and give hot milk at bedtime. As these sweats usually make their appearance in the early morning a good way to relieve them is to awake the patient about 4 A. M. and give him a glass of warm milk containing a little whisky; or a light midnight meal may be given and the body sponged with dilute acid washes.

The most reliable internal remedy is atropin:

R.	Atropin. sulphat.....	gr. $\frac{1}{6}$
	Acidi sulphur. aromat.....	3 iii
	Aq. menth. pip.....	q. s. ad. 3 iii
M. Sig. A teaspoonful in water at bedtime.		

Or:

R.	Acidi camphorici.....	3 ii
----	-----------------------	------

Pone in cachetas No. xii.

Sig. One or two cachets about two hours before expected sweat.

Or the following, especially in tuberculosis:

R.	Agaricin.....	gr. $\frac{1}{2}$
	Picrotoxin.....	gr. $\frac{1}{60}$
	Atropin. sulphat.....	gr. $\frac{1}{120}$

M. et ft. pil. No. i.

Sig. One at bedtime.

NIPPLES, SORE.

Prophylaxis. Exposure of the nipples to the air and bathing with brandy are excellent ways to harden them. A saturated boric acid solution as a wash is also useful

If the nipples become sore and fissured during lactation a shield should be used to give the nipple rest while the child sucks. The nipples should be washed after use. The following local application may be given:

R.	Balsam. peruvian.....	ʒ ii
	Olei amygdalæ.....	ʒ iss
	Mucil. acac.....	ʒ ii
	Ol. rosæ.....	m. ii

M. Sig. Apply to the nipples after each nursing.

If the nipples are inflamed the following lotion may be used:

R.	Liq. plumb. subacetat.....	ʒ ss
	Extr. opii.....	ʒ i
	Aquæ rosæ.....	ʒ iiiiss

M. Sig. Lotion to be used after a bread-and-milk poultice.

Lotions are of much better service than ointments or greasy applications.

Astringents harden the nipples but tend to crack them; however, a mild astringent may be used such as an infusion of green tea. Glycerin of tannin (1 to 4) or glycerin of borax (1 to 5) are also simple but effective remedies.

NOSE, BLEEDING AT. (EPISTAXIS).

Do not check unnecessarily vicarious bleedings of menstruation, of plethora or of the crises of certain fevers.

The patient should have absolute rest, and the head should be kept erect, not forward and downwards, as is commonly done. If the bleeding comes from the anterior part of the nasal cavity, pressure of the alæ against the nasal septum will often stop the bleeding. The application of cold to the nose or the insufflation of cold water is also effective. Dry the place where the bleeding is taking place with absorbent cotton and apply nitrate of silver, chromic acid or the galvano-cautery. Astringents like alum or tannin are also useful.

When these simple means fail, pack part of the nasal cavity where the bleeding is. Introduce a narrow slip of surgical gauze and pack it against the bleeding part. The gauze may be soaked in adrenalin solution 1 to 1000.

The use of the following solution is frequently followed by prompt cessation of the haemorrhage:

R.	Antipyrin	grs. xx
	Aquæ	ʒi

M. Sig. Inject into nose lukewarm with nasal syringe.

If there is a haemorrhagic tendency, calcium chloride should be given internally:

R.	Calcii chloridi.....	ʒiii
	Fluidextract. ergotæ.....	ʒii
	Aquæ	ʒi
	Syr. sarsap. co..... q. s. ad.	ʒii

M. Sig. One teaspoonful every two hours.

Feeding the patient on gelatin is also useful. The ordinary flavored gelatins on the market answer the purpose well, especially in the case of children.

NYCTALOPIA (See Day-blindness).

NYMPHOMANIA.

Remove all sources of local irritation and give:

R.	Sodii arsenatis.....	gr. ½
	Hyoscyinae hydrobromidi.....	gr. ¼
	Potass. bromid.....	ʒi

M. ft. caps. No. xxx.

One capsule after meals.

Or:

R.	Liq. potass. arsenit.....	m. viii
	Sodii bromidi.....	ʒiv
	Aquæ camphor..... q. s. ad.	ʒviii

M. Sig. A tablespoonful in water after each meal.

Tobacco smoked or chewed ad nauseam is said to cure the disorder but is very depressing to the patient.
(See also Aphrodisia.)

OBESITY.

Avoid overeating, diminish starches and fats in dietary, prohibit pastry and sweets. Lessen amount of fluids drunk, especially at meal times. Take regular exercise in the open air, such as walking, golfing, bicycling, automobiling or horseback riding. The oxidation of the fats of the body is accelerated by massage. In some cases cold baths and sea baths are beneficial, in others Turkish and steam baths. The hours of sleep should be limited to six or at most eight hours. The liver should be stimulated with Carlsbad and Kissingen salts, and Vichy water. These salts are best prescribed in effervescing form after each meal. Carlsbad and Kissingen should be taken on alternate days. In some cases this treatment is very efficacious.

The following prescriptions may be given, but only as adjuncts to the above:

R. Tabell. glandul. thyroid. sicc..... grs. v

No. xxiv.

Sig. One tablet after each meal and cautiously increased.

This drug should not be carelessly used, and its effects should be carefully watched. Palpitation, restlessness, headache and syncope indicate an excessive dosage.

Another form of treatment is:

R. Ext. phytolacc. fl..... ʒi

Sig. Ten drops in water after each meal.

Iodine with the alkaline iodides may also be administered, but only as an adjunct to strictly regulated exercise, diet, etc.:

R. Iodin..... grs. iss

Potass. iodid..... grs. xxv

Aquæ..... q. s. ad. ʒi

Sig. A teaspoonful three times a day.

Saccharin, a sweetening agent 500 times sweeter than sugar, is also used in the dietary of obese patients. One-half of a grain (tablet) may be used in place

of each lump of sugar in sweetening tea, coffee, or cocoa.

OERTEL'S TREATMENT.

This combines a dietetic and a mechanical method of treatment. It consists (1) in restricting the amount of fluids ingested. This lessening of the fluids of the body seems to help in reducing the fat and stops the weakening of the heart muscle which is the starting point of the dangers of obesity. Beer is forbidden and small quantities of water are given at frequent intervals to allay thirst. Excretion of water is stimulated by sweats and deep inspirations. (2) Stimulation of the circulation by systematized exercise in the form of walks and mountain climbing. This stimulates the heart, develops the respiratory muscles, increases the lung capacity and widens the vessels. In this way the combustion of the body-fat is effected and the tissue albumin is preserved. (3) The fats and carbohydrates in the diet are restricted.

The following is Oertel's dietary:

Morning meal: Coffee, $4\frac{1}{4}$ ounces; milk, 1 ounce; sugar, 77 grains; wheaten bread, $1\frac{1}{4}$ ounces.

Midday meal: Soup, 3 ounces; roast or boiled beef, veal, game, or lean poultry, 7 to 8 ounces; fresh salad, 1 ounce; bread, 1 ounce, never to exceed 3 ounces; fruit, 3 to 6 ounces; a little fish if desired. Light wine, 6 to 8 ounces, if no fruit, or if very hot weather; otherwise no fluid with this meal.

Afternoon meal: Coffee, $3\frac{1}{2}$ ounces; milk, 1 ounce; sugar, 77 grains; water, 2 ounces, never more than 6 ounces; bread, 1 ounce (exceptionally).

Evening meal: Wine, 7 ounces; water, 2 ounces, one or two eggs; roast meat, 5 ounces; salad, 1 ounce.

OLD AGE, DIET IN.

Since persons who are small eaters and are spare and lean, usually live longer than fat people who are gross eaters, the indication is to provide sufficient,

but no more, nutriment for persons in advanced life. The functions of the kidney are apt to fail because of shrinkage due to interstitial fibrosis, hence an old person should be sparing in the use of animal food. The main portion of his dietary should consist of carbohydrates and vegetable food, to which fish may be added. Further, the vigor of the digestive powers and the assimilative capacity tend to be lessened in the aged and hence the necessity for plain and readily digestible food.

The following articles of diet satisfy these requirements: finely divided, or minced, and tender, well-dressed, roast meat, mutton, fish and game in small quantities; well-cooked vegetable food, mashed potatoes, spinach, lightly boiled eggs, farinaceous puddings and mutton broth.

Wine and warmth are proverbially good for the aged. From two to six ounces of mature port wine or two ounces of brandy or whisky per day is in most cases beneficial, but more than that should be forbidden. Tea, coffee, and cocoa are both grateful and salutary for old people. The following arrangement of meals is to be recommended. A light breakfast, a hearty luncheon with the above limited amount of stimulants, and an evening meal consisting of farinaceous food or oatmeal and milk.

ONYCHIA. (INFLAMMATION OF MATRIX OF NAIL.)

Prophylaxis. The occurrence of inflammation about a nail as a result of injury may be avoided by the immediate immersion of the finger in very hot water.

Treatment. Inflammation may be aborted by painting the reddened skin with a 20% solution of silver nitrate. Or apply the following:

- | | | |
|----|---|-------|
| R. | Liq. plumb. subacet..... | 3iv |
| | Tinct. opii..... | 3iv |
| | Aquæ.....q. s. ad. | 3viii |
| M. | Sig. Apply freely on soft cloths or absorbent cotton. | |

When there is moderate inflammation bind a strip of salicylic acid plaster (10%) tightly around the nail.

If suppuration occurs make a deep incision, evacuate pus and apply:

R.	Ichthyol.....	5ii
	Extr. opii.....	grs. xv
	Lanolin.....	3iii
	Cerat. plumb. subacet.....	3iii

M. Sig. Apply freely after evacuating pus.

If it is necessary to remove the nail give the following local anaesthetic:

R.	Cocainæ hydrochlor.....	gr. i
	Morph. hydrochlor.....	gr $\frac{1}{8}$
	Sodii chlor.....	gr. i
	Phenolis.....	gtt. i
	Aquaë destillatæ.....	q. s. ad. 3i

M. Sig Inject into tissue around base of nail.

For treatment of onychia lateralis see **Ingrowing Toe Nail.**

OPERATION, PREPARING A PATIENT FOR.

An aperient should be given over-night and a simple enema early in the morning of the operation. No solid food should be given for at least four hours before the operation, but a cup of beef tea may be given two hours before it. All false teeth should be removed. If the skin at the seat of the operation is hairy, it should be shaved for a considerable distance round and then thoroughly cleansed with a sterilized nail brush, soap, and hot water with a little washing soda dissolved in it. The grease is then removed with turpentine or ether. The part is then covered by a dressing soaked in a per-chloride of mercury lotion (1 to 2,000) and covered with protective, and the dressing is left on for six hours. The temperature of the operating room should be from 65° to 70° F. or even higher in the case of abdominal operations. Draughts should be carefully avoided. Care should be taken to see

that the number of sponges at the end of the operation is the same as at the beginning. Stimulants should be at hand as well as a hypodermic syringe and also the materials necessary for the infusion of saline solution.

OPHTHALMIA NEONATORUM.

Prophylaxis. Immediately after the birth of the child its eyes and eyelids should be wiped clear of mucus and two drops of a 2% solution of nitrate of silver should be dropped into each eye. This should be the routine practice whether the maternal vagina be infected or not. When the mother's passages are suspected the vagina should be douched once or twice daily before delivery with a mild alkaline solution and then with a solution of bichloride of mercury (1 to 5,000).

Treatment. Wash the eyes every 15 to 30 minutes, day and night, with saturated solution of boric acid to keep them free from pus. An eye dropper attached to a fountain syringe may be used. Lay the child on its side and irrigate the lower lid, instilling the solution into the inner angle of the eye. In addition to this instil twice a day a few drops of a 10% protargol solution.

During the acute inflammatory stage, cold applications are necessary. Small pieces of gauze are laid on a block of ice and applied to the eye one after the other for two or three hours at a time.

If only one eye is affected, protect the well one by laying on it small pledgets of cotton soaked in an antiseptic solution.

OPIUM POISONING, ACUTE.

First, remove the unabsorbed poison from the stomach, second, prevent death by coma and cessation of respiration.

Give an emetic or use the stomach tube. A strong infusion of coffee may be used as an antidote, and pilocarpin to increase the elimination by the

skin. Rouse the patient and dash cold water on the face. Then walk him between two strong men up and down preferably in the open air for ten to fifteen hours if necessary. Atropin sulphate may be given hypodermically ($\frac{1}{100}$ gr.) and repeated if necessary till $\frac{1}{25}$ grain has been given. The body should be kept warm and dry and warmth should be applied to the extremities. Artificial respiration and inhalation of oxygen may be resorted to.

ORCHITIS (See Epididymitis).

OSTEOMALACIA.

If the case is seen early in pregnancy, abortion should be induced and the patient should then be placed on a substantial diet consisting largely of milk. Tonics as cod liver oil and phosphorus are of benefit:

R.	Olei phosphorati.....	3ii
	Olei morrhuae.....	3iii
M.	Pone in capsulas No. cxx.	
Sig.	One capsule after each meal.	
	The following may also be found of service:	
R.	Syrupi calcis.....	3iii
Sig.	Half a teaspoonful in water after each meal.	

If the case is seen late in pregnancy, Cæsarean section may be necessary or preferably, supra-vaginal amputation of the uterus (Porro operation). This prevents further pregnancies and often arrests the disease. The suppression of the sexual function produced by ovariotomy often cures the disease also.

If the case is seen during lactation, nursing the child at the breast should be stopped.

At the present time considerable success has followed the daily injection of 8 minims of adrenalin solution in the strength of 1 to 1,000. After twenty-five injections patients are able to walk.

OSTEOMYELITIS, ACUTE.

The indications for treatment are plain, the pus must be evacuated no matter where it is. An in-

cision must be made down to the bone and the periosteum should then be incised. The sooner the above treatment is carried out the better. The pus cavity should be irrigated with a 1 to 2,000 bichloride solution and then packed with gauze. Where much bone has been destroyed it becomes necessary to make a long incision to remove the dead sequestra of bone.

OTALGIA (See Earache).

OTITIS (See Earache).

OTORRHEA.

In strumous patients give the following to tone up the system:

R. Syrupi ferri iodidi..... ʒ i

Sig. Three to fifteen drops (according to age) in milk after meals.

Syringe gently with corrosive sublimate lotion (1-5,000). Then dry, and dust in with insufflator gently the following powder:

R. Iodoformi..... ʒ i

Pulveris acidi borici..... ʒ ii

M. Sig. Dust in ear freely twice daily after cleansing.

Then pack the meatus loosely with an antiseptic gauze. Repeat daily or twice daily until the discharge lessens; then syringe gently, daily, with the following lotion:

R. Acidi carbolici..... grs. x

Plumbi acetat..... grs. x

Tinct. opii..... ʒ ii

Aquæ..... ʒ viii

M. Sig. Irrigate the auditory meatus daily.

Force should never be used in irrigating an ear. Always allow plenty of space for the water to escape.

Ordinary cases of otorrhea where there is no odor to the discharge, do not require irrigation. The canal should be wiped out every hour or two with cotton wrapped round a toothpick.

OXYURIS (See Thread Worms).

OZENA.

Look for and treat the cause. In syphilitic ozena give:

- R. Hydrargyri chloridi mit..... grs. xv
Pulveris sacchari..... 3iv

M. Sig. Use as snuff three times a day after cleansing.

As a general rule attempts to cure ozena by local measures alone are useless. The tone of the general system should be restored by hygienic and tonic measures.

The following may be given:

- R. Syrupi ferri iodidi..... 3i
Emuls. olei morrhuae, U.S.P. .q. s. ad. 3vi

Sig. One teaspoonful two hours after meals.

In the local treatment there are two objects to be kept in mind, to relieve irritability of the nasal mucous membrane by sedatives and protective applications, and to check the secretions. When the secretions are watery and profuse it is not necessary to cleanse the nasal cavity, but when they are muco-purulent the nose should be cleared before local remedies can have any effect.

The nostrils may be cleansed with a five per cent solution of hydrogen peroxide or weak solution of sodium chlorid. Then give:

- R. Ichthyol..... m. xl
Menthol..... gr. v
Lanolin..... 3i

M. Sig. At bedtime introduce a piece of ointment as large as a bean, and snuff back.

The following may be used as a douche:

- R. Potass. permanganat..... 5i
Aqua destillat..... 3xvi

M. Sig. A tablespoonful to a pint of water as nasal douche several times a day.

PACHYMEMINGITIS, EXTERNA.

Treat the cause. Infection usually comes from without. Surgical treatment is indicated in all cases and is followed by good results.

PACHYMEMINGITIS, INTERNA.

Remove the cause if possible.

The seizure should be treated with a rectal injection of a drachm each of chloral and bromide of sodium. The head should be elevated, the ice-bag applied to it, and leeches applied to the back of the ear. Lumbar puncture is of no benefit. Morphine and chloral may be given to relieve the headache.

PALPITATION OF THE HEART.

This condition is frequently so troublesome as to require special relief. The cause should be diligently searched for and treated, e. g., overloaded stomach, acute dyspepsia, disease of the heart, angina pectoris, anaemia, exophthalmic goitre, hysteria, etc.

If due to an overloaded stomach, it should be promptly emptied by the stomach tube, followed by a brisk cathartic.

Frequently what will benefit one case will not affect another in the least.

When due to hysteria or emotional causes the following may be given:

R. Asafetida.....grs. xxiv

Zinc. valerian.....grs. xii

Ext. sumbul.....grs. xii

M. et ft. caps. No. xii.

Sig. One capsule every four hours.

Or:

R. Camph. monobrom.....grs. xlvi

Zinc. valerian.....grs. xxiv

Extr. hyoscyam.....grs. xii

M. et ft. pil. No. xxiv.

Sig. One pill every four hours.

When due to arteriosclerosis or sudden increased tension in the blood vessels, a pearl of nitrite of amyl crushed in a handkerchief and inhaled frequently gives speedy relief.

Some patients are relieved by the application of ice or cold to the precordium, others again by the inhalation of ether, ammonia or strong acetic acid.

Digitalis is of no use to relieve the paroxysm because it acts too slowly.

A mixture of carminatives usually gives relief in most cases:

R.	Spt. æth. nitros.....	ʒ ss
	Spt. ammon. aromat.....	ʒ ss
	Spt. camphor.....	ʒ ii
	Tinct. zingiber.....	ʒ iv
	Ol. menth. pip.....	ʒ i
	Tinct cardamom comp....q. s. ad.	ʒ iii

M. Sig. One teaspoonful in a wineglassful of water every fifteen minutes until relief is obtained.

Sometimes an attack may be aborted by thoroughly rubbing the following ointment into the precordium:

R.	Veratrinæ.....	grs. iii
	Extr. opii.....	grs. xv
	Ol. menth. pip.....	m. xv
	Tinct. cantharid.....	m x
	Ol. terebinth.....	m ii
	Adip. benzoat.....q. s. ad.	ʒ i

M. Sig. For external use.

During the interval between attacks the patient should be forbidden the use of tea, coffee, tobacco and alcohol. Sexual excitement must also be avoided, as should strenuous work and brain-fag.

If anæmia is the cause, iron, phosphorus and arsenic are indicated:

R.	Mass. Blaud.....	ʒ ii
	Zinci phosphid.....	grs. ii
	Ext. gentian.....	grs. vi
	Ext. nuc. vomic.....	grs. vi
	Ac. arsenios.....	gr. $\frac{1}{2}$

M. et ft. caps. No. xxiv.

Sig. One capsule after each meal.

If due to plethora, give salines in the morning on arising with hot water. Epsom or Carlsbad salts may be used, or some of the liquid salines may be substituted, as Hunyadi Janos, Rubinat or Pluto water. The patient must also take plenty of fresh air exercise and have his diet carefully regulated.

Some conditions, especially arteriosclerosis, are greatly benefited by the prolonged administration of potassium iodide, 5 grains four times a day.

PARALYSIS AGITANS.

The patient should not indulge in any excesses, but should lead a very quiet, retired life. Warm baths allay the nervous irritability. Electricity and massage are of no avail.

The medicinal treatment should be directed against the tremor. Give hyoscine hydrobromate ($\frac{1}{200}$ to $\frac{1}{150}$ gr.) twice a day hypodermically or orally. Arsenic and nux vomica are often of use when given together:

R.	Acid. arsenios.....	gr. $\frac{1}{2}$
	Extr. nuc. vomic.....	grs. iv
	Zinci phosphidi.....	gr. iss

M. et ft. caps. No. xviii.

Sig. One every four hours.

Occasionally it becomes necessary to employ morphine sulphate (gr. $\frac{1}{4}$) at bedtime to quiet the tremor.

PARALYSIS, DIPHTHERITIC.

Strychnine should be given in gradually increasing doses. For a child from six to ten years old begin by giving $\frac{1}{200}$ gr. three times a day, gradually increasing the dose to $\frac{1}{60}$ gr. Electricity should be applied daily in the form of the galvanic and faradic current alternately; also the high frequency current along the spine and down the limbs following the course of the nerve trunks. Massage of the muscles is also necessary to prevent wasting. Give plenty of good, easily digested, nourishing food.

PARALYSIS, FACIAL. (BELL'S PALSY.)

If due to syphilis or lesions of the middle ear give appropriate treatment. Ear drainage is often curative.

The patient should be kept indoors and hot fomentations kept up for two or three days. The application of a blister over the mastoid and one over the side of the neck are often of benefit.

A weak galvanic current applied over the affected muscles just strong enough to cause contraction is often of service.

Deformity may be corrected by massaging the cheek and mouth upwards, and placing a tape in the angle of the mouth and sustaining it by an adhesive plaster. The eye should be douched with boric acid, bandaged close during sleep and the lids massaged.

Strychnine should be pushed in doses of $\frac{1}{5}$ grain, every three hours.

PARALYSIS, GENERAL (See Dementia Paralytica).

PARALYSIS, INFANTILE, CEREBRAL.

The treatment of this disease is very discouraging. The convulsions are controlled by inhalations of chloroform or by the administration of chloral by the rectum. For a child three years old dissolve 15 grains of chloral hydrate in water and give per rectum.

The epilepsy which results from this disease is incurable. Bromides are of no use. Operative interference may be tried. The results are encouraging in those cases that do not die as the result of the operation.

PARALYSIS, INFANTILE SPINAL (See Infantile Spinal Paralysis).

PARAPLEGIA.

Look for and treat cause if found. If due to hysteria, remove the patient promptly from her

relatives and treat her in isolation by psychotherapeutic methods, either in a hospital ward or nursing home. If due to syphilis, give potassium iodide in doses of 10 to 15 grains three times a day, and rapidly increased until 100 grains are taken in the 24 hours; while twice daily an inunction of mercury should be given and continued until salivation or redness of the gums appears.

If the spinal cord is pressed on by a tumor an operation should be undertaken. In determining the exact segmental location of the tumor it should be noted that the constant tendency is to locate the tumor rather lower in the spinal cord than is actually the case.

If the paraplegia is due to tuberculous disease of the spinal column, extension should be applied, with counter-extension to the head if the disease is situated in the cervical region. The patient should be kept in extension for two or three months.

If there is reason to suspect a tuberculous abscess an operation hould be undertaken, more especially if the patient is a child.

In traumatic paraplegia associated with fracture-dislocation of the spine, an early operation is attended with some hope of relief, if it so happens that the cord is pressed on by a piece of bone which is removable.

Symptomatic treatment. If the patient is unable to pass urine it should be at once drawn off with the strictest aseptic precautions. A catheter should be passed three times a day. A statement to the effect that urine is being passed is to be accepted with caution, since a dribbling overflow may delude the patient into believing that all is well.

To avoid bed-sores the patient should be placed upon a water bed. The prone position with pillows under the abdomen is advisable since in this position gravitation will be more likely to deplete the vessels in the neighborhood of the lesion.

A sponge-bag filled with ice should be applied over the situation of the lesion, and if haemorrhage is suspected, full doses of ergot should be given.

Mild laxatives or a daily enema of soap and water should be given to guard against constipation.

Veronal in doses of 5 to 10 grains may be given for the flexor spasms.

If cystitis exists the bladder should be washed out two or three times a day with a weak boric acid lotion, while salol, urotropin and acid phosphate of soda are given internally.

In flaccid paraplegia, the paralyzed muscles should be massaged and faradic or galvanic current applied to them and strychnine given hypodermically.

PAROTITIS (See Mumps).

PARTURIENT WOMAN, AFTER-CARE OF.

When the umbilical cord has been tied and cut and the eyes of the child washed with a saturated solution of boric acid (half a teaspoonful in a cup of warm water) wrap the child in warm flannel and hand it to the attendant.

Give attention now to the mother and redouble precautions as to asepsis. Intra-vaginal or uterine manipulations are now exceedingly dangerous, for they are no longer made inside the amniotic cavity. The danger of infection is so much increased now that manual removal of the placenta is one of the most dangerous obstetric operations. It is usually expelled by the contractions of the uterus in from 10 to 30 minutes after labor. Manual removal should only be resorted to when all other methods (Crede's, etc.) have failed, and then only after thorough disinfection of the hand.

After the placenta and membranes are expelled, the maternal surface of the placenta should be examined by placing the fetal surface on the palm of the hand or by spreading it out in a large dish

of water. Examine carefully whether any piece has been torn off and left in the uterine cavity.

Next examine whether the entire bag of membranes is present, by passing the hand into the membrane cavity and estimating its size, taking into account the size of the child and the amount of liquor amnii.

A post-partum douche should only be given when the hand or instruments have been introduced into the uterus or where there is danger of uterine sepsis.

The external genitals, thighs, buttocks, and lower abdomen should be washed with bichloride solution (1 to 4,000). The vulva should be covered with a sterile napkin, which may be a dry antiseptic pad or one soaked in an antiseptic solution.

PEMPHIGUS.

Iron, cod liver oil, general hygienic measures such as a nutritious diet carefully adapted to the stomach, or a bracing climate are usually of the greatest benefit. Quinine, phosphorus and strychnine are also of great value, and above all arsenic:

R. Liq. potass. arsenitis..... 5*i*

Sig. One drop in water after meals, and gradually increase to tolerance.

The following pill is useful in the case of anæmic subjects:

R. Sodii arsenatis..... gr. i

Quininæ hydrochloridi..... 5*i*

Massæ ferri carbonatis..... 5*ss*

M. ft. pil. No. xxx.

Sig. One pill after each meal.

Locally, dusting powders such as boric acid with oxide of zinc and starch are useful, or prescribe:

R. Zinci stearatis..... 5*i*

Sig. Apply freely as a dusting powder.

If the tension of the blebs is uncomfortable they may be punctured and then dressed with zinc ointment.

PEPTIC ULCER (See Gastric Ulcer).

PERFORATING ULCER (See Gastric Ulcer).

PERICARDITIS, ACUTE.

Patient should be kept absolutely quiet, free from worry. Treat the cause as, rheumatism, pyæmia, septicæmia, acute lobar pneumonia. Occasionally an attack of acute pericarditis may be cut short by a blister, leeches or dry cups applied to the precordial region. The application of an ice-bag or very hot fomentations are highly recommended.

At the beginning of the attack when the pulse is full and strong a brisk purgative should be given. The heart in this disease is usually weak, therefore such drugs as antimony, aconite and veratrum viride are contra-indicated.

Quinine is a useful remedy throughout the disease, especially in the form of Niemeyer's pill which consists of:

R.	Quin. sulph.....	grs. xii
	Extr. digital.....	grs. iii
	Extr. opii.....	grs. iv
M.	et ft. caps. No. xii.	
Sig.	One every four hours.	

Fly blisters should be applied over the region of the heart in rheumatic cases. They do no good in septicæmia, Bright's disease or diphtheria.

Dry pericarditis requires little treatment, perhaps an occasional dose of morphine to relieve pain.

In moist pericarditis, digitalis and strophanthus are indicated, especially when the pulse is rapid, irregular, weak or dicrotic:

R.	Tinct. digital.....	5iv
	Tinct. strophanth.....	5i
	Syr. aurant. cortic.....q. s. ad	3iii
M.	Sig. One teaspoonful every four hours.	

Restrict the quantity of liquids drunk while the exudation of fluids is going on. Absorption is promoted by blisters, iodine, etc., also by the administration of tonics such as quinine, strychnine, nux vomica, iron and cardiac tonics. Purgation, diuretics, and potassium iodide promote absorption of the fluid. Aspiration of the pericardial cavity is very rarely required, it is attended with danger.

If symptoms of cardiac failure appear give digitalis, strophanthus, strychnine, alcohol, ammonia, ether, etc.:

R. Tinct. strychnin. sulph.	gr. $\frac{2}{3}$
Tinct. strophanthus.....	3i
Tinct. digitalis.....	3ii
Brandy.....	q. s. ad. 3iii
M. Sig. One teaspoonful every three hours.	
For sleeplessness give 10 grs. of sulphonal.	

PERINEUM, RUPTURE OF.

Prophylaxis. During labor when the head reaches the outlet and presses upon the perineum, do not "strip" the perineum as is so often done by pressing back strongly against the tense perineum, for this aids laceration. Advise the patient to cease as far as possible from making expulsive efforts, so that the slight delay may give the tissues time to dilate naturally. For the same reason some advise direct pressure upwards and backwards against the head. Place the left hand against the perineum while the fingers of the right hand are pressed against the head. In this way extension of the head and retardation of its descent are at the same time accomplished. Free lubrication of the perineum may be employed in all cases where there is a threatening laceration, and where there is much rigidity an incision with the knife or scissors may be resorted to.

Improper use of instruments should also be avoided; also the introduction of the hand without previous dilation. The more the thighs are

extended the more the perineal tissues are relaxed, so that flexion of the thighs on the abdomen should be avoided.

Treatment. If the rupture is only of small extent it may be left to nature, observing the strictest cleanliness by frequent sponging of the parts with a warm antiseptic solution such as weak Condy's fluid or carbolic lotion.

Deeper tears should be stitched at the completion of delivery. But if the light is poor and proper facilities and antiseptic precautions cannot be secured, the operation may be postponed for a few hours, not more than twelve. In the interval apply wet antiseptic dressings to the vulva.

PERITONITIS, ACUTE.

This should never be looked upon as an idiopathic condition; always seek the cause such as appendicitis, typhoid fever, salpingitis, pancreatitis, cholangitis, intussusception, impaction of feces, injury, gastric ulcer, strangulated hernia, etc. After the primary cause is discovered use those measures which are best suited for such cause.

Medical treatment. Rest is of the first importance, in fact the patient is usually found in bed with the knees drawn up. In some cases the weight of the bed-clothes is too much and it becomes necessary to protect the abdomen by a cradle or special appliance.

The diet is of the utmost importance. Today the general tendency is to withhold everything by the mouth even water, in order not to set up peristalsis. Feeding per rectum is substituted. To relieve the intense thirst of peritonitis, four ounces of physiologic salt solution should be injected into the rectum every three or four hours.

In some cases a chip of ice may be placed on the tongue for the relief of thirst.

If collapse sets in, it may be necessary to give

alcoholic stimulants either by mouth or hypodermically. The following may be used for this purpose:

- | | |
|---|-------------------|
| R. Strych. sulphat..... | gr. $\frac{2}{3}$ |
| Brandy..... | 3iii |
| M. Sig. One teaspoonful by mouth or hypodermically. | |

Opium has been extensively used for years in the treatment of all forms of peritonitis, but is no longer considered of benefit except in the relief of pain. If there is no vomiting and the pain is very severe 15 drops of tincture of opium may be given every two or three hours if necessary.

Opium should never be given in pill form on account of its accumulative effect. A hypodermic injection of $\frac{1}{4}$ grain of morphine sulphate and $\frac{1}{160}$ grain of atropine sulphate is no doubt the best method of controlling the pain.

The vomiting is best controlled by lavage of the stomach.

Purgatives should not be used under any circumstances because they set up peristalsis which interferes with the rest which is so essential for the recovery of the inflamed peritoneum.

Locally hot linseed poultices may be applied to the abdomen; they relieve pain and distension.

The tympanites is best treated by hot turpentine stypes to the abdomen and by enemata of two quarts of hot water containing tincture of asafœtida 3iii, spirits of chloroform 3i, and spirits of turpentine 3ss.

Surgical treatment. This gives the patient the best chances for his life. Simple incision and drainage are advisable, followed by placing the patient in a semi-erect position, and allowing saline solution to continuously flow into the rectum at low pressure. The reservoir should not be more than two feet above the patient.

PERITONITIS, TUBERCULOUS.

This is a surgical disease. Laparotomy gives the only hope of improvement or cure. It is not known why improvement takes place; some believe that daylight, others that evaporation, irritation of the peritoneal surface, hyperleucocytosis, etc., is the cause of the cure. The same line of treatment should be pursued as in cases of general tuberculosis. Some surgeons simply open the abdomen and sew it up again. Others remove the exudate with dry sponges, and others still flush with physiologic salt solution, or solution of salicylic acid.

PHARYNGITIS, ACUTE.

Put the patient to bed and begin with half-grain doses of calomel followed by a saline cathartic. If the case is seen early give a Dover's powder. To control the fever and benefit the local condition give:

R.	Tinct. aconit.....	m. xxx
	Tinct. belladonnæ.....	m. xxx
	Ammon. tinct. guiac.....	5v
	Syr. limon.....	3iv
	Aq. cinnamon.....	q. s. ad 3iv

M. Sig. One teaspoonful every three hours.

Locally, cold applied externally by wet compresses or a cold coil, gives relief in the early stages. Heat is more agreeable in the later stages, applied in the form of hot compresses, flaxseed poultices or a mild mustard paste.

Gargles are very comforting, for although they do not reach all the posterior wall of the pharynx, they do reach the adjacent part. The following may be given:

R.	Potassii chlorat.....	5iii
	Tinct. ferr. chlor.....	5i
	Glycerin.....	5ss
	Aq. destillat.....	q. s. ad. 5iii

M. Sig. One teaspoonful to be gargled and then swallowed every two hours.

Or:

R. Argyrol..... grs. xv

Aq. destillat..... ʒii

M. Sig. Use, undiluted, as a gargle every two or three hours.

Guiacl (50% in sweet almond oil) used with brush or spray is a very good local application, or give:

R. Argenti nitratis..... grs. xl

Aquæ destillatæ..... ʒi

M. Sig. Paint over pharynx, tonsils, and soft palate.

Or:

R. Cocain. hydrochlor grs. x

Boric acid grs. xxx

Aquæ destillatæ ʒiv

M. Sig. Cleanse throat by gargling, and after drying apply with brush every two hours.

PHARYNGITIS, CHRONIC.

Prevent any cause of irritation, such as smoking, exposure to cold, misuse and overuse of the voice, mouth-breathing and intemperance in both eating and drinking. Remove adenoid growths and nasal obstruction if present. The patient should avoid hawking to clear the throat. He should avoid tea, coffee, and all very hot or highly seasoned greasy dishes. All food should be thoroughly masticated and very little fluid should be taken at meals.

Treat any defect in the general health and attend carefully to digestive disturbances. Tonics like iron, strychnine, and cod liver oil are often beneficial. Salines, cholagogues and alkalies with bitters are of service.

The following is often beneficial:

R. Liq. potass. arsenitis..... ʒss

Syr. rub. idæi.

Aquæ..... ââ q. s. ad. ʒiii

Sig. One teaspoonful after meals.

Local treatment. Frequently spray the nasopharynx with Dobell's solution:

R. Sodii bicarb.

Sodii borat	ââ grs. xv
Acidi carbolici.....	grs. viii
Glycerini.....	3ii
Aquæ.....	3viii

M.

In clergyman's sore throat the following may be given:

R. Iodin.....	grs. iii
Potass. iodid.....	grs. v
Glycerin.....	3iv
Aquæ.....	3iv

M. Sig. Apply with brush several times a day.

In follicular pharyngitis galvano-puncture of the enlarged follicles is advisable and then application of the following:

R. Acidi carbolici.....	grs. v
Tinct. iodi.....	3ii
Acidi tannici.....	grs. xxx
Glycerini.....	q. s. ad. 3ii

M. Sig. Apply with a swab two or three times daily.

PHLEBITIS. (INFLAMMATION OF VEINS.)

Prophylaxis. Asepsis or antisepsis for all conditions from the slightest infected scratch to abortion with retained placenta. Carious teeth should receive attention and paring corns with ordinary domestic instruments should not be practiced. Mastoid and middle-ear disease should receive proper surgical treatment.

The treatment of phlebitis is the same as that of Phlegmasia Alba Dolens, which see.

PHLEGMASIA ALBA DOLENS.

Place the patient on her back in bed and keep her perfectly quiet, wrap the affected limb in wool and keep it elevated on pillows. Avoid all manipu-

lations on the limb and warn patient against making any movements in order to prevent detachment of thrombi and resulting embolism. Do not allow the patient out of bed until two weeks after the subsidence of the swelling. The diet should be nourishing and the bowels should be kept well regulated.

The following may be given for the relief of the pain:

R. Phenacetini..... 3*ii*

Div. in chart. No. xii.

Sig. One powder not oftener than every four hours.

The following is a common local remedy:

R. Tinet. iodi..... 3*ii*

Sig. Paint along the course of the swollen veins once daily or upon alternate days.

Or:

R. Ungt. belladonn..... 3*i*

Ungt. hydrarg..... 3*iv*

Ichthyoli..... 3*i*

Adipis lanæ hydroosi..... q. s. ad. 3*iv*

M. Sig. Apply freely but very gently, without friction, along the course of the swollen veins.

If, in the cellulitic form, abscesses develop in the femoral region they should be opened as soon as possible in order to avoid the formation of fistulæ.

PHOSPHORUS POISONING. (RAT PASTE, MATCHES.)

Use the stomach pump or give an emetic. Give copper sulphate (grains 3) dissolved in 4 ounces of water every five minutes until vomiting is induced, then every twenty minutes. Copper sulphate acts not merely as an emetic but also as an antidote, forming an insoluble phosphide of copper.

Twenty grains of zinc sulphate dissolved in 4 ounces of water may be given as an emetic and after free emesis has been produced half an ounce of magnesium sulphate may be given as a purge.

Demulcents like milk and eggs may be given but oils and fats should be avoided as they are solvents of phosphorus. Hypodermic injection of morphine sulphate may be given for the pain.

PILES (See Hemorrhoids).

PINK EYE (See Conjunctivitis, Acute Contagious).

PLAQUE, BUBONIC.

Prevention. Extermination of rats, isolation of patients, disinfection of excretions, bed-clothing, etc., and cremation of the dead.

Treatment is symptomatic. Absolute rest in bed, and keep patient prone till the temperature has been normal for at least four days. Abundant ventilation. At onset of disease open bowels by 5 to 10 grs. of calomel, followed in five hours by a saline purgative. Control the fever by tepid sponging, wet pack, cold to head and Leiter's tubes. For the tendency to heart weakness and collapse, give stimulants such as ammonia, digitalis, alcohol and strychnine. The food should be liquid and given frequently in small quantities.

Local treatment of the glands. In early stages, soothing applications such as poultices, anodynes, or ice-bags. When suppuration occurs, prompt incision and drainage. Injection into the glands of solutions of mercury bichloride and carbolic acid has been tried with success. Injection of anti-plague serum or vaccine such as that of Haffkine or that of Yersin is said to be of great value.

PLEURISY.

The indications are: 1st, to cut short the inflammatory process and limit the amount of exudation; 2d, to relieve any urgent symptoms which may arise, e. g., severe pain, urgent dyspnœa, cough, etc.; 3d, whenever the effusion is so quickly poured out as to seriously embarrass the breathing, to perform paracentesis; 4th, as soon as the fever

has subsided to help nature to absorb the inflammatory products; 5th, if absorption is too slow, draw off a portion of the fluid.

Treatment. Confine the patient to bed in a room at a temperature of 60° F. and keep him there so long as any considerable amount of fluid remains in the cavity of the pleura. The diet should consist of milk, and milk foods, soups, meat extracts, beaten-up eggs, etc. Restrict the amount of fluid drunk as much as possible. Give a little water, barley water, citric acid solution or lemon water to quench the thirst.

If the case is seen at the beginning the attack may be cut short by cupping, the application of an ice-bag to the affected side, brisk purgation and the administration of calomel and opium, aconite, etc.

R.	Tinct. aconiti.....	5ss
	Spirit. æther. nitros.....	3i
	Syrupi.....	3ii
	Liq. potass. citrat..... q. s. ad.	3viii

M. Sig. One tablespoonful every hour until the pulse becomes soft and compressible, then every two or three hours.

Give at the same time the following:

R.	Hydrarg. chlor. mit.....	grs. iii
	Pulv. opii.....	grs. vi
	Saponis.....	grs. xv

M. et ft. pil. No. xii.

Sig. One pill every hour or until the bowels move freely. To be followed by a full dose of magnesium citrate.

If the febrile process is fully established and exudation is present apply warm fomentations and give a brisk watery purge such as:

R.	Pulv. jalapæ co.....	3ii
----	----------------------	-----

Sig. Half to two teaspoonfuls once daily to produce profuse watery purging.

In the average run of cases in which the fever is not high, quinine (2 or 3 grains every four hours), liquor ammoniæ acetatis (one or two drachms every three hours) may be given. The salicylates may also be given because of their influence over the inflammation of serous membranes, and are especially valuable in rheumatic patients:

R. Acidi salicylici..... ʒii

Pone in cachetas No. xii.

Sig. One or two cachets three times a day after meals. To be followed by a full glass of milk to protect stomach.

Or:

R. Sodii salicylatis..... ʒi

Potassii iodidi..... ʒss

Syr. sarsapar. co..... ʒii

Aq. menth. virid..... q. s. ad. ʒviii

M. Sig. Two teaspoonfuls in water or milk after meals.

In the hope of lessening the effusion, hot air or steam baths or diaphoretics like pilocarpin may be employed:

R. Tab. pilocarpinæ hydrochloridi..... gr. $\frac{1}{10}$
No. xii

Sig. One or two tablets by mouth or hypodermically every hour until profuse sweating.

When the fever runs high (102° or 104° F.) and the pulse is hard and tense, tartar emetic in small and frequently repeated doses (15 drops of antimonial wine every four hours) and aconite (drop-doses of the tincture every hour) may be given. Should it appear necessary to bring down the temperature rapidly, cold sponging, the application of an ice-bag to the chest, and the administration of large doses of quinine are of most benefit.

Treatment of urgent symptoms. For the severe pain which is often present in the earlier stages, hypodermic injection of morphia and the application of

warm fomentations or leeches usually give relief. When cough is unusually troublesome, morphia or some preparation of opium may be given but opiates are contra-indicated when there are bronchial and pulmonary complications. Urgent dyspnœa, or paroxysmal attacks of orthopnoea, when associated with and apparently due to pleuritic effusion, are best treated by **Paracentesis**, which see.

The embarrassment of the action of the heart and of the circulation, which is frequently associated with a rapidly developed and copious effusion, is usually best relieved by aspiration; in many of these cases the pulse becomes slower, fuller and stronger as the fluid is withdrawn. Great general prostration and cardiac failure (manifested by great frequency, feebleness and irregularity of the pulse, cyanosis, etc.), which do not appear to be directly due to the presence of a large effusion, should be treated by the administration of stimulants and cardiac tonics (brandy, ether, digitalis, strychnine, etc.)

As soon as the fever subsides and the tongue clears a more liberal diet may be allowed (fish, chicken, red meat, etc.) A dry diet is advisable; the amount of fluid which the patient drinks should be restricted as much as possible. The rest of the treatment consists in assisting nature to effect absorption of the inflammatory exudation, 1st, restore the general health and nerve tone by suitable hygienic and dietetic measures, and by the administration of tonics; 2d, stimulate and strengthen the action of the heart by the administration of cardiac stimulants and tonics; 3d, promote the free action of the bowels, kidneys and skin; 4th, administer such internal remedies as are useful for promoting absorption of inflammatory products, as:

R. Sod. salicylat.....	5iv
Potass. iodid.....	5ii
Aquæ.....	5i
Elix. digestiv. co. N. F.....q. s. ad.	5iii

M. Sig. One teaspoonful in hot water every four hours.

PLUMBISM (See Lead-poisoning).

PNEUMOCONIOSIS.

The patient should be removed from all sources of bronchial irritation, e. g., dusty atmosphere, such occupations as coal mining, stone polishing, brass polishing, etc.

The irritating bronchitis which is usually present is best treated by making the patient breathe pure air out of doors, by tonics and by drugs which relieve the local irritation, e. g.:

R. Mentholis.....	grs. vi
Spt. vini rect.....	3ss
Heroini.....	grs. ii
Syr. tolu.....	3i
Syr. prun. virg.....q. s. ad.	3iii

M. Sig. One teaspoonful every three hours.

The patient should be well clothed, well fed and well housed.

The drugs of benefit in this condition are arsenic, iodide of potassium and iron.

R. Syr. ferri iodid.....	3iii
--------------------------	------

Sig. One-half teaspoonful in wineglassful of water after each meal.

R. Potass. iodid	3ii
------------------------	-----

Div. in caps. No. xxiv.

Sig. One four times a day with water.

R. Liq. potass. arsenit.....	3iv
------------------------------	-----

Sig. Five drops in water after each meal.

PNEUMONIA, ACUTE LOBULAR. (ACUTE BRONCHOPNEUMONIA, CAPILLARY BRONCHITIS.)

Every attack of bronchitis in children should receive careful attention.

When an attack of pneumonia begins the child should be placed in a large, airy room. Plenty of oxygen is essential.

The child's position should be frequently changed. If there is much fever, reduce the quantity and quality of its food. Do not give medicines or stimulants in its food.

Locally a mustard plaster may be applied to the chest, not longer than ten minutes at a time. Flax-seed poultices are occasionally of much benefit.

Stimulation with brandy, whisky, sherry or Tokay becomes necessary in those cases that are secondary to other diseases. The character and rapidity of the pulse are guides for the administration of alcohol. From one-half to one ounce of brandy daily may be given to a child one year old.

Stimulants are well borne by children. They are most needed when the temperature is low.

Strychnine is of great value in this disease; $\frac{1}{300}$ grain may be given every four hours to a child four years old.

Oxygen may be given continuously but it should always be mixed with air.

For fever in this disease antipyretics should rarely be given. If the fever runs above 104° F. or 105° F. use cold sponging, or the cold pack, or the cold bath. An infant should be put in a bath of 95° F. which may be carefully lowered to 90° F. The duration of the bath should not exceed five minutes. Rectal injections of cold water are also of benefit.

If the temperature still keeps up, then one grain of phenacetin may be given every three hours to a child one year old. The following makes a good fever mixture for children. For a child one year old give:

R.	Spts. æth. nitros.....	5iv
	Potass. citrat.....	5ss
	Spts. minderer.....	5iii
	Aquæ.....	3i
	Syr. glycyrrhiz.....q. s. ad.	3iii
M.	Sig. One teaspoonful every three hours.	

Inhalations of steam are of great benefit in this type of pneumonia. Dry air such as is found in steam-heated apartments is irritating and decreases expectoration. Under these circumstances the air should be kept moist by placing a basin of water on the radiator.

A good method of supplying steam to the child is to place a sheet over the bed in the form of a tent, attach a rubber hose to a kettle of boiling water and allow the steam to enter the tent through the hose. Creosote and other drugs may be added to the water but little extra benefit is derived from them. The plain steam loosens and liquefies the mucus so that it can be readily expectorated.

When the child is too weak to expectorate the mucus and suffocation or extension of the disease is threatened thereby, it becomes necessary to give an emetic. First stimulate the child with a little brandy, then give a teaspoonful of ipecacuanha; repeat in ten minutes if emesis does not take place. If the child's reflexes are gone, the further administration of ipecacuanha only helps to depress the child still further.

Expectorants unquestionably do good in bronchopneumonia. The following may be given to a child 1 to 5 years old:

R.	Ammon. carb.....	grs. xxiv
	Ammon. iodid.....	grs. xii
	Syr. tolu.....	3i
	Syr. prun. virg.....	3i
	Syr. licorici.....q. s. ad.	3iii

M. Sig. One teaspoonful every three hours.

Or:

R.	Ammon. chlorid.....	grs. xxiv
	Syr. lactucar.....	3iii
	Syr. tolu.....	3i
	Syr. senegæ.....	3ss
	Glycerini.....q. s. ad.	3iii

M. Sig. One teaspoonful every three hours.

When the cough is very irritating and incessant it becomes necessary to add a little codeine to the above prescriptions, but in this disease it must be given cautiously. To a child of from 3 to 5 years of age do not give more than $\frac{1}{5}$ grain of codeine to the dose. Bromides are also of benefit. Perhaps it is best to have a sedative mixture like the following from which to give an occasional dose when it is required. For a child 3 to 5 years old give:

R.	Tinet. opii. camph.....	3ii
	Sodii bromid.....	3i
	Ammon. bromid.....	3ss
	Syr. tolu.....	3i
	Syr. prun. virgin.....	3iii
	Syr. acaciæq. s. ad.	3ii

M. Sig. One teaspoonful when necessary; not oftener than every three hours.

In protracted cases of the disease which are usually secondary to some other disease, it is necessary to keep up treatment for 5 or 6 weeks before any improvement sets in. Stimulation by strychnine, brandy, digitalis and oxygen must be kept up. As soon as some signs of convalescence appear, a change of climate is almost indispensable. Sending a child out of a city or town to the country is occasionally followed by complete recovery.

PNEUMONIA, LOBAR. (ACUTE CROUPOUS.)

The treatment varies with the extent of the involvement and severity of the disease, and with the habits and peculiarities of each patient. It is a self-limited disease and all that we can do up to the present time is to carefully watch the heart.

In the very beginning if the patient is robust and plethoric and the pulse is full and bounding, he ought to be bled (10 to 20 ounces).

Pneumonia anti-toxin has so far been unsuccessful in lessening the severity or duration of the disease.

The patient should be placed in a large, well-ventilated, airy room, with the temperature low rather than high. The bed-clothes should be light. Out-of-door treatment has become very popular of late, and certainly fulfils all that can be expected from it.

At the beginning of the treatment give the patient a saline cathartic such as half an ounce of Rochelle salts.

Sponging with cold or tepid water should be started from the beginning and should be continued at least once or twice a day.

If the fever runs high the patient should be sponged with cold water every two or three hours, night and day.

For the stitch in the side which is caused by pleurisy, a small hypodermic injection of morphine sulphate ($\frac{1}{6}$ grain) may be given, or an ice-bag or hot poultices. In children hot poultices are preferable.

The patient may lie in any position that is most comfortable to him.

Good nursing is of the highest importance in this disease. The patient should have two nurses, one for night and the other for day.

The diet regulation is important. Liquid food should be given, e. g., milk, milk foods, such as cornflour and arrow-root, raw eggs, meat extracts, meat juices, etc. Give one and a half pints of milk daily at least. If it produces flatulence, avoid milk, or try:

R.	Mentholis.....	grs. vi
	Spts. vini rect.....	3ss
	Spts. ammon. aromat.....	3iv
	Spts. chloroform.....	3ii
	Infus. calumb.....q. s. ad.	3iii

M. Sig. One teaspoonful every four hours.

For the intense thirst give plenty of water, but do not allow the patient to take too much at one time. Lemonade or claret and water may be given freely.

The mouth should be kept scrupulously clean;

allow the patient to rinse it with hot water or some antiseptic solution such as boric acid, or:

R. Liq. alkalin. antisept. N. F. 3 iii

Sig. One teaspoonful in hot water as mouth-wash every two hours.

Such drugs as antipyrin, phenacetin, acetanilid or antifebrin are of no use in reducing temperature.

The best way to reduce high fever is by cold sponging, or the application of an ice-bag or ice-pack to the chest.

The internal administration of alcohol has in past years been overdone, but it unquestionably frequently stimulates a fagged-out heart until the crisis is safely passed.

Those who have been in the habit of imbibing alcohol freely should be allowed two or three ounces of brandy or whisky in the twenty-four hours.

When it is necessary to stimulate the heart continuously it is best to use digitalis or strophanthus. Tincture of digitalis should be given in five drop doses every three or four hours.

Strychnine is one of the best known remedies in this disease; it should be given in $\frac{1}{60}$ grain doses every three or four hours.

Oxygen inhalations with strychnine sulphate hypodermically are of considerable service. The oxygen should be allowed to flow in a continuous stream over the patient.

Saline injections are of much service in combating the action of toxins in the blood.

An ice-bag to the head, cold to the surface of the body, and the internal administration of alcohol are the best means of combating sleeplessness, restlessness, and delirium. The following mixture may be used for sleeplessness:

R. Potass. bromidi.....	3 iiss
Chloral hydrat.....	3 iss
Sodii bromidi.....	3 ii
Aquæ.....	3 iss
Syr. aurant..... q. s. ad.	3 ii

M. Sig. One teaspoonful in water. Repeat in two hours if necessary.

If the patient has a severe crisis and is threatened with collapse, give brandy freely every half hour.

The cough in pneumonia usually requires no treatment, but if it is very annoying the following may be given:

R. Vin. ipecac.

Potass. nitrat.....āā 3i

Morph. hydrochlor..... gr. $\frac{2}{3}$

Acid. hydrobrom. dil..... 3iv

Glycerin.

Syr. aurant.....āā 3ss

Infus. senegæ.....q. s. ad. 3vi

M. Sig. One tablespoonful every four hours.

As soon as the crisis is over, hot linseed poultices may be applied to the consolidated area to help absorption of the exudate. Inunctions of the following are also of benefit:

R. Ungt. hydrarg..... 3ii

Sig. Rub thoroughly into the affected side twice a day.

After three or four days the following may be given to help in the absorption of the exudate:

R. Sodii salicylat..... 3ii

Potass. iodidi..... 3ii

Aquæ..... 3i

Ess. pepsin.....q. s. ad. 3iii

M. Sig. One teaspoonful in half a glass of hot water every three hours.

Hot baths are also of some benefit.

It is important, especially after the crisis, not to allow the patient's room to be swept up with a broom, because staphylococci and streptococci may gain entrance to the weakened lung and set up secondary infection.

During convalescence tonics should be given as:

R. Elix. ferri, quinin. et strychn..... 3iv

Sig. One teaspoonful in water four times a day.

Or:

R. Tinet. nuc. vomic..... ʒiv

Malt cum pepsin et pancreatin q s ad. ʒiii

M. Sig. One teaspoonful before each meal.

In delayed resolution, potassium iodide and cod liver oil are indicated:

Sig. Ten drops in hot water every four hours.

R. Sat. sol. potass. iodid..... ʒi

And:

R. Emuls. ol. morrhuae U. S. P..... ʒvi

Sig. Two teaspoons three times a day.

POLIOMYELITIS, ACUTE ANTERIOR (See Infantile Spinal Paralysis).

POLITZERIZING THE MIDDLE EAR, DIRECTIONS FOR.

Introduce the end piece or nozzle into one of the nostrils, then close both nasal orifices by compression between the thumb and fingers. The patient is then asked to swallow a small quantity of water and as soon as Adam's apple is seen to rise the Politzer bag is quickly compressed.

The Politzerization should be done very gently at first and the patient told beforehand of the slight shock to be expected. The patient is usually able to tell whether or not the air has entered his middle ear. The air will often enter both ears when one Eustachian tube is swollen, but it will enter on the diseased side with less force. When chloroform vapor is used instead of air, a sense of heat or cold is felt.

PREMATURE INFANTS, CARE OF.

The baby should be protected from noises, bright lights and unnecessary handling. To keep up the temperature use an incubator or hot water bags or bottles placed carefully around the baby in a crib basket padded with cotton. The top of the

basket should be covered with a blanket which comes up to the baby's neck. An even temperature between 90° F. and 95° F. must be kept up regularly. The temperature of the room should be from 80° F. to 85° F. The baby should not be washed but oiled every three days and wrapped in a quilted gown with a hood. Absorbent cotton may be used for a diaper.

When necessary give one or two drops of brandy and $\frac{1}{1000}$ gr. strychnine.

Babies under two pounds usually die. The prognosis is fair when the weight is over four pounds. (See also Feeding of Premature Infants.)

PRESBYOPIA.

Supplement the failing accommodation by convex glasses. These should not much exceed one dioptric when first given to a presbyopic emmetrope of from 40 to 45 years of age. To preserve the habit of accommodation, they should at first be used only in such work as cannot be performed without them. A presbyope should always keep a record of the power of his glasses and when he needs them stronger, the next glasses which he uses should be half a dioptric more than the old ones. Too weak glasses do not give full relief, and too strong ones compel holding the book at too short a distance.

PRICKLY HEAT.

Cold water baths, light diet, wear linen or silk next the skin, discontinue soap. Avoid perspiring and take little or no exercise. Drink very little and only in very small quantities at a time. Relieve constipation with saline laxatives or mild diuretics like the citrate, acetate or nitrate of potassium.

Relieve itching with lotions of carbolic acid (1 in 80), or of boric acid followed by a simple dusting powder. Anoint body night and morning with lanoline (1 part) and almond oil (8 parts), or instead dust skin with Fuller's earth (or starch) and zinc oxide.

PROGRESSIVE MUSCULAR ATROPHY.

Attention to the general health, avoidance of fatigue, and careful diet. Phosphorus compounds are often of service. Strychnine nitrate in doses of $\frac{1}{50}$ grain given hypodermically is of great benefit. Electricity, massage and careful gymnastics are also serviceable.

PROLAPSUS ANI ET RECTI.

Look for and treat the cause, e. g., debility, worms, vesical calculus, phimosis, stricture, etc.

In the case of children aim at diminishing the amount and frequency of the prolapse. Direct the act of defecation to be performed in the recumbent posture, and give laxatives to prevent straining, e. g., sulphur confection, laxative fruit, etc. Avoid cathartics and any source of irritation which will cause frequent passages. Each time that the bowel protrudes use an astringent such as:

R.	Plumb. acetat.....	grs. x
	Pulv. gallæ.....	3i
	Ichthyol.....	m. xxx
	Vaseline.....	3ii
	Lanolin.....	3vi

M. Sig. Apply freely to the prolapsed mass and gently push behind the sphincter.

If the prolapsed mass is inflamed, œdematosus and irreducible, put the patient to bed, use freely cold applications and smear the tumor with an ointment of equal parts of extracts of opium and belladonna. In a week or so the tumor may be in a position to be replaced or removed by surgical means.

The following may be given internally:

R.	Strych. sulphat.....	gr. i
	Ergotin.....	3ii
	Quinine.....	3i

M. ft. pil. No. xl.

Sig. One after each meal.

PROSTATITIS, ACUTE.

The patient should have absolute rest in bed in a horizontal position with the hips elevated a little.

To ease the pain and give the bladder rest from spasm, give opiates by the mouth, or morphine and atropine hypodermically, or opium and belladonna suppositories.

If there is irritation of the bladder and tenesmus give:

- R. Tincturæ veratri..... ʒii
Morphinæ acetatis..... grs. iii
Syrupi acidi citrici..... ʒiv
Liq. potass. citrat..... q. s. ad. ʒvi
M. Sig. Two teaspoonfuls in water every 2 hours.

The following suppository will be found useful:

- R. Extracti hyoscyami..... grs. ii
Extracti opii..... grs. vi
Olei theobromatis..... ʒiss

M. et ft. suppositoria No. vi.

Sig. One suppository by rectum not oftener than every six hours.

Irritation from injections, unsuitable diuretics, and instruments should be avoided.

In very acute cases, leeches and hot poultices may be applied to the perineum and the bowels kept open, especially if opiates are administered, by aperients such as:

- R. Hydrarg. chlor. mit..... grs. ii
Sodii bicarb..... grs. xii

M. ft. chart. No. vi.

Sig. One powder on tongue every hour. To be followed by Seidlitz powder unless free evacuation of the bowels.

The urine should be kept alkaline with diluents and alkaline diuretics.

If signs of suppuration present themselves and fluctuation be distinct, the abscess may be aspirated or punctured by a sharp knife through the rectum.

The nourishment of the patient should be bland and unstimulating, consisting of farinaceous gruels, milk, light broths, etc. Alcohol should of course be avoided.

PROSTATITIS, CHRONIC.

Cold sitz baths, cold enemata, counter-irritation by means of small blisters to the perineum, and the passage of a soft rubber catheter to draw off the urine when necessary. The following injection may be given:

R. Argenti nitrat..... grs. x
Aqua destillat..... ʒ i

M. Sig. Instil a few drops into urethra once daily by means of a deep urethral syringe.

The general treatment should be tonic with a generous unstimulating diet, cold sponge baths in the morning, and moderate exercise in the open air.

PRURIGO.

The general health should be restored and maintained by improved hygiene, a liberal dietary, cod liver oil and iron.

Internally tincture of cannabis indica in full doses mitigates the itching considerably; thirty minimis well diluted should be given after each meal. About every six weeks an interval of a fortnight should be allowed in its administration.

Phenacetin and antipyrin are also valuable remedies.

R. Antipyrini..... ʒ iss
Ft. chart. No. xii.

Sig. One powder when the itching is very annoying.

The patient will be made more comfortable with rest, an even temperature, and alkaline or sulphur baths. For the alkaline (full-length) bath use five ounces of bicarbonate of soda in 30 gallons of water at a temperature of 90° to 95° F. A sulphur bath may be similarly prepared by adding three ounces of sulphuret of potassium to each bath.

For the local treatment, naphthol, sulphur and tar relieve the itching and decrease the papular eruption:

R.	Naphthol resublim.....	grs. x
	Sulphuris loti.....	5 <i>i</i>
	Ungt. picis.....	3 <i>iv</i>
	Lanolin.....	ad. 3 <i>i</i>

M. Sig. Apply freely and leave on for two hours; then soap and bathe in warm water.

PRURITUS.

Search for the cause and remove it if possible. Always examine the urine for sugar, as diabetes is a very frequent cause of pruritus. For pruritus ani see Ani, Pruritus. Pruritus vulvæ may be due to ovarian or uterine disease, urethritis or diabetes. Pruritus of the hands and feet are mostly found in gouty subjects. Pruritus of the serotum is usually due to eczema. Pruritus vulvæ or itching of the nose in children is usually due to ascarides in the rectum or vulva.

Treatment. The diet should be easily digestible, and alcohol, sauces and condiments should be forbidden. The bowels should be carefully regulated, and calomel followed by saline aperients should be given at first. Afterwards the bowels should be kept regular by extract of cascara sagrada or compound liquorice powder.

The best internal remedy is cannabis indica, which seems to act by diminishing cutaneous sensibility. Begin with five minims of the tincture, and increase the dose to 20 or 30 minims three times a day, well diluted and after meals. Or give, when debility is also present:

R.	Strychninæ sulphat.....	gr. i
	Extracti cannabis indicæ.....	grs. iii
	Quininæ hydrochloridi.....	grs. xxiv
M.	ft. pil. No. xxiv.	
Sig.	One pill after each meal.	

External treatment is useful even if it is not curative, for by giving temporary relief it enables the patient to abstain from scratching, and this gives the irritated nerve filaments a chance of rest while internal remedies are being directed to the cause of the disorder. For general pruritus, lotions are preferable to ointments. The following is a good lotion:

R.	Liq. carbonis detergens.....	ʒiii
	Liq. plumb. subacetat.....	ʒiv
	Glycerini.....	ʒiv
	Aq. destillat..... q. s. ad.	ʒviii

M. Sig. Apply three times a day.

Or:

R.	Acidi carbolici.....	ʒii
	Glycerini.....	ʒii
	Alcoholis.....	ʒii
	Aquæ..... q. s. ad.	Oi

M. Sig. Apply three times a day.

A bran bath made by adding five pounds of bran to a tubful of water is very soothing. Also an alkaline bath made by adding five ounces of bicarbonate of soda to a tubful of hot water. After the bath do not rub the surface dry but dab it gently with a soft cloth and dust it with a soothing powder.

In senile pruritus give:

R.	Pilocarp. hydrochlor.....	gr. ss
	Aquæ.....	ʒiii

M. Sig. A tablespoonful at bedtime.

In vulvar and vaginal pruritus give:

R.	Sat. sol. boric acid.....	ʒvii
	Aq. rosæ.....	ʒi

M. Sig. Apply on compress, hot, several times a day.

Or tincture of benzoin may be painted on the parts daily with a camel's hair brush.

In scrotal pruritus give:

R.	Lead acetate.....	grs. x
	Cocain. hydrochlor.....	grs. xv
	White vaselin	ʒiii
	Lanolin.....	ʒv

M. Sig. Apply once or twice daily.

For pruritus hiemalis give alkaline baths and apply a two per cent solution of salicylic acid in vaseline.

PRUSSIC ACID POISONING.

If the patient is seen immediately after the poison is taken, he should be at once placed in the open air and a stomach pump applied or an emetic given. While a cold douche is being applied to his head and spine, artificial respiration (20 to a minute) should be practiced on him, and ammonia applied to his nostrils.

Next dissolve iron sulphate (15 grs.) and tinct. ferr. perchlor. (20 minims) in a wineglassful of water, and add two drachms of magnes. carb. made into a thin cream with water. Ether may be given hypodermically, or stimulants internally.

This poison acts with the greatest rapidity and as much haste as possible is necessary in dealing with it.

PSEUDO-LEUKÆMIA (See Lymphadenoma).

PSEUDO-LEUKÆMIA INFANTUM (V. JAKSCH).

Treat the cause which may be syphilis, rickets, inanition, tuberculosis, etc.

The disease being most frequent between the ages of six months and two years, a great deal depends upon the proper feeding of the child. The disease is most frequent in bottle-fed infants and they should be placed on a proper milk mixture. They should be placed in as hygienic surroundings as possible.

The drug treatment is that of secondary anaemia, as hypophosphites, iron, arsenic, and cod liver oil.

For a child one year old give:

R. Syr. ferri iodidi..... 3*i*

Sig. One drop in water three times a day.

Or:

R. Malt cum hypophospatite..... 3*iii*

Sig. One teaspoonful every four hours.

Cod liver oil or olive oil may be introduced into the body by inunction.

X-ray treatment to the enlarged spleen is of little use.

Arsenic is frequently of considerable benefit; it should be prescribed in the form of Fowler's solution, one drop three times a day, or it may be combined with hypophosphites or other tonics.

PSORIASIS.

The general health should be attended to. The patient should avoid such depressing influences as overwork, worry, a relaxing climate, sexual excesses, suckling or other drain upon the system.

In the gouty, alkalies are of value, e.g.:

R.	Liq. potass. hydroxid.....	ʒiv
	Vini colchici semin.....	ʒi
	Syr. sarsapar. co.....	ʒii
	Aquæ.....q. s. ad.	ʒviii

M. Sig. A teaspoonful in water after meals.

In psoriasis with anaemia, enlarged glands in children and youths give:

R.	Syr. ferr. iodid.....	ʒiv
	Olei phosphorat.....	m. c
	Olei morrhuae.....q. s. ad.	ʒvi

Sig. One teaspoonful two hours after meals.

Or:

R.	Liq. potass. arsenit.....	m. xlviii
	Olei morrhuae.....	ʒiv
	Syr. ferr. iodid.....	ʒi
	Acac.....	ʒi
	Aquæ.....q. s. ad.	ʒviii

M. ft. emulsum.

Sig. One to two teaspoonsfuls after each meal, to be followed by a full draught of water.

Arsenic although often disappointing in its effects is a drug of considerable value in this affection. It is usually employed in the form of Fowler's solution (liq. potass. arsenit.) in five-drop doses for an adult after

each meal. This dose should be gradually increased (an additional drop every 24 hours) until the limit of tolerance is reached. Another useful arsenical preparation is "Asiatic pill" the formula of which is:

R.	Acid. arsenios.....	gr. i
	Piper. nigris.....	grs. xx
	Pill mass.....	q. s.

M. ft. pil. xx.

Sig. Begin with one after each meal; increase by one every day.

Local treatment. The scales should first be removed by hot baths and alkaline soaps, e. g., *sapo viridis*, in order to permit the action of the remedies, such as tar, oil of cade, chrysarobin, salicylic acid, resorcin, sulphur or ammoniated mercury:

R.	Olei cadii.....	3ii
	Adipis.....	3i

M. Sig. Apply night and morning.

Or:

R.	Acidi salicylic.....	grs. xxx
	Ungt. pic. liquidæ.....	3i

M. Sig. Rub thoroughly into patch night and morning.

Or:

R.	Chrysarobini.....	5i
	Acidi salicylici.....	grs. xv
	Æther	5i
	Olei ricini.....	m. v
	Cellodii.....	q. s. ad. 5i

M. Sig. Apply with camel's-hair brush and paint over with plain collodion.

PTOMAINE POISONING.

Since the poison itself has a purgative and emetic effect, the stomach tube, emetics or purgatives are usually unnecessary. But they should all be employed if something still remains behind. Calomel should be used as the purgative. For the collapse give stimulants such as strychnin ($\frac{1}{6}$ grain

hypodermically), or champagne, or milk mixed with carbonated water. The pain may be relieved by morphine ($\frac{1}{4}$ grain) hypodermically and counter-irritation with mustard. Internally oil of eucalyptus globulus may be administered.

PTOSIS.

In the congenital and traumatic forms ptosis is apt to be one-sided. The form which is the result of disease of the central nervous system is usually bilateral.

Galvanism is of importance. Drugs which cure syphilis and rheumatism may be tried. Most cases require resection of a piece of the tarsal cartilage before they get well.

PTYALISM.

Prophylaxis. Keep the mouth and teeth carefully cleansed. If the gums are sore and tender and the teeth are sore on striking, or if "mercurial fetor" arises during the administration of mercury, stop giving the drug. In nephritis, mercurials should be administered with great care as in that disease ptyalism is specially liable to supervene. Giving small doses of potassium chlorate along with the mercury, lessens the chance of ptyalism, or the potassium chlorate may be given as a mouth-wash:

R. Potass. chloratis..... ʒiv

Sig. A teaspoonful in a glass of water as a mouth-wash after meals.

Or:

R. Tinct. myrrhæ..... ʒi

Potass. chlorat..... ʒvi

Aquæ camphoræ..... q. s. ad. ʒxvi

M. Sig. Shake. Use as mouth-wash every two or three hours.

Treatment. If the ptyalism is due to the administration of mercurials, stop the drug and administer

a saline purge. Check secretion and harden the gums with an astringent mouth-wash, such as:

R. Glyceriti acidi tannici..... ʒii

Sig. Use upon swab in mouth three or four times a day.

Or give:

R. Liquoris antiseptici, U. S. P..... ʒiv

Sig. A teaspoonful in a wineglass of water as a mouth-wash every two or three hours.

If the ptyalism is due to iodism, stop the drug and administer sodium bicarbonate.

When the ptyalism is due to other causes as in pregnancy and in neurotic patients, the activity of the salivary glands may be diminished by atropin 60 grain every four hours until there is a sensation of dryness in the throat. Tincture of belladonna may be given instead in ten minim doses three times a day or in the following way:

R. Tinct. belladonn. fol..... ʒii

Potass. bromid..... ʒiv

Aquæ camphoræ..... q. s. ad. ʒviii

M. Sig. One teaspoonful every hour until dryness of mouth and throat, then lessen the dose or give at longer intervals.

PUERPERAL FEVER.

Prophylaxis. Select a large well-ventilated lying-in chamber removed from sinks or toilets. Make as few vaginal examinations as possible before, during, and after labor, and with strictest antiseptic precautions. The obstetrician's hands and forearms should be scrubbed with a sterile brush, green soap and hot water for three minutes, changing the water at least once. Clean and trim the fingernails. Wash again for five minutes. Soak hands and forearms for three minutes in a bichloride of mercury solution (1 to 1,000).

Before the onset of labor bathe the patient and give a rectal enema. Wash her external genitals

first with hot water, then with a 1 to 2,000 solution of bichloride of mercury. Then protect them with a towel soaked in bichloride solution.

Since perineal tears may give entrance to germs they should be repaired by placing the sutures during the third stage and tying them after the placenta has been expelled.

After the birth of the placenta give ergot to secure contraction of the uterus, then clean the patient and cover the vulva with a sterile dressing pinned to the abdominal binder.

During the puerperium cleanse the external genitals by frequent irrigation with a 1 to 4,000 solution of mercury bichloride and renew the vulval pads frequently.

Treatment. At the onset of the fever give:

- R. Hydrarg. chlor. mit..... grs. v
Sodii bicarb..... grs. x

M. Sig. Give at once on tongue.

Keep the bowels open throughout. Give enemata of salt solution every six hours through the long rectal tube to regulate the bowels, relieve symptoms and promote diuresis.

In severe cases give strychnine every two hours in $\frac{1}{6}$ grain doses with half an ounce of whisky every hour, reducing the quantity when the pulse shows improvement.

Local treatment. When the lower part of the vagina is infected place the patient in the lithotomy position and expose the vagina. Wash out the infected area with 50% solution of peroxide of hydrogen, then place in the vagina a gauze tampon soaked in an antiseptic solution such as:

- R. Formalin..... m. xxx
Glycerin..... 3iv
Sterile water..... Oi

M. After twelve hours withdraw the gauze and repeat the process until the infected parts are in a healthy condition.

Antiseptic douches are dangerous and should be used with great caution.

Clots and fragments of placenta may be removed from the uterus with the finger or the dull curette, but curetting is dangerous for it breaks down the protective wall of leucocytes and exposes fresh areas to infection.

When there is abundant foul discharge the masses of necrotic matter should be cleaned out with the finger or curette, and this should be followed by a large douche of salt solution, repeating the douche every six hours.

For the relief of pain and especially when peritonitis co-exists give:

R.	Olei terebinth.....	ʒiv
	Ungt. belladonnæ.....	ʒiv
	Ungt. hydrarg.....	ʒi
	Ichthyol.....	ʒiv
	Lanolin.....	ʒiss

M. Sig. Apply freely to the abdomen.

Puerperal fever is most often due to the streptococcus. If the anti-streptococcus serum is used early we may sometimes save an otherwise hopeless case. It should be administered immediately after the first chill when it will cause a drop in the temperature of three or more degrees in a few hours. The first dose should consist of 10 c.c. and be repeated two or three times in the first twenty-four hours. If reaction does not take place give 20 c.c. at the same intervals.

PUERPERAL INSANITY.

The treatment of this disorder is best carried out in an asylum. If the patient is kept at home, competent and trustworthy nurses should be engaged and the patient should never be left alone because of danger to herself (suicide) or to her child. The lochia should be carefully watched. If the insanity is due to sepsis, carefully treat the infection. Isolation and absolute rest in bed are

essential and plenty of nourishment in an easily digestible form should be given.

For the maniacal symptoms the following sedative may be given:

R. Hyoscinæ hydrobromidi.....	gr. $\frac{1}{8}$
Camphoræ monobromatæ.....	5 <i>i</i>

M. ft. caps. No. xv.

Sig. One capsule at bedtime; repeat in six hours if required.

Or:

R. Chlorali hydrati.....	5 <i>ii</i>
Potassii bromidi.....	5 <i>iv</i>
Syrupi acaciæ.....	5 <i>i</i>
Aquæ.....q. s. ad.	5 <i>iii</i>

M. Sig. One to two teaspoonfuls in water not oftener than every six hours. Shake well.

The bowels should be kept regulated. For the constipation which is nearly always present give aperients, but if the constipation is obstinate give:

R. Elaterini.....	gr. $\frac{1}{8}$
Sacchari lactis.....	gr. vi

M. ft. chart. No. iii.

Sig. One on tongue and repeat in two hours unless free purgation.

PULMONARY ABSCESS AND GANGRENE.

If the fever is high and the digestion feeble the diet should be semi-liquid and sustaining (eggs, milk, broth, meat juice and a little wine or whisky).

Tonics such as strychnine, digitalis, caffeine and arsenic may be given and when convalescence sets in, iron, cod liver oil and hypophosphites are indicated.

Expectorants should not be given for they derange the stomach of the patient and do little good. Inhalations however are of service. A two per cent aqueous solution of oil of turpentine is made to boil over an alcohol lamp in the closed room where the patient resides for weeks.

If a pulmonary abscess communicates with the pleural cavity or if it is on the surface of the lung, surgery should be resorted to.

PURPURA.

The great majority of cases terminate in complete recovery.

Keep the patient at complete rest in bed, feed him on a purely milk diet, and if the gastro-intestinal symptoms are very marked, limit the diet to peptonized milk. In very severe cases the patient may be fed for a time per rectum. Administer internally, tincture of the perchloride of iron:

R.	Tinct. ferri chloridi.....	ʒ ii
	Glycerini.....	ʒ iv
	Aquæ.....q. s. ad.	ʒ iii

M. Sig. A teaspoonful in water through a glass tube three times a day after meals.

In all cases in which there is any doubt as to the differential diagnosis between scurvy and purpura, the patient should be placed on an anti-scorbutic diet with plenty of vegetables.

When the condition appears to be rheumatic, salicylate of sodium may be tried.

When there is bleeding from the stomach and intestines and especially in children with debility and vascular relaxation, turpentine given internally will be found useful :

R.	Olei terebinthinæ.....	ʒ i
	Sacchari.....	ʒ iv
	Acaciæ.....	ʒ iv
	Aquæ.....q. s. ad	ʒ iii

M. fiat emulsum.

Sig. One teaspoonful after each meal.

Eating freely of gelatin and the administration of calcium chloride to increase the coagulability of the blood are also of service:

R.	Calcii chloridi.....	ʒ iv
	Aquæ.....	ʒ vi

M. Sig. A tablespoonful in water three times a day.

During convalescence, quinine, arsenic and iron are useful remedies.

PYELITIS. (INFLAMMATION OF PELVIS OF KIDNEY.)

Prophylaxis. Great care should be taken in the use of catheters. Irritating diuretics should be avoided and in the treatment of gonorrhea, etc., plenty of water, milk and mineral water should be given freely to flush out the urinary passages. The employment of the recent scientific methods of diagnosis by means of ureteral catheterization is of the greatest importance in the prevention of ascending infection.

Treatment. Pain is relieved by hot applications (hot compress, turpentine stupe, dry cupping or mustard paste) over the kidney. Opium should rarely be given but if the pain is very severe a suppository containing one or two grains of opium may be given, or morphine ($\frac{1}{4}$ grain) hypodermically.

Alkalies, alkaline mineral waters, plenty of plain water and vegetable diuretics like buchu are of service, as:

R. Sodii bromidi.

Sodii bicarb.....	āā	3iiss
Extracti belladonnæ, fluid.....	m.	xxiv
Extracti buchu, fluid.....		3iv
Syr. sarsap. co	q. s. ad.	3iv

M. Sig. A teaspoonful in water four times a day.

The urinary antiseptic urotropin (5 grains) may be given in combination with salol (5 grains) or sodium benzoate (10 grains) to acidify the alkaline urine, to ease the lumbar pain and to lessen the pus.

The diet should be nourishing and tonics like cod liver oil, iron, quinine and strychnine are useful in combating weakness and emaciation.

If the ureteral drainage is incomplete surgical interference may be necessary to save the patient's life.

PYEMIA.

Prophylaxis. Strictest antiseptic precautions and free drainage to keep the wound healthy. Attend to patient's general health. Plenty of fresh air must be given and overcrowding avoided, especially of patients suffering from suppurating wounds.

Treatment. Control fever by antipyretics or tepid sponging. Quinine in 10-grain doses every four hours is useful. Combat heart failure by stimulants such as large quantities of whisky and brandy. Give champagne for vomiting or, if severe, give bismuth or small doses of hydrocyanic acid. Morphine to relieve the pain. Take precautions against the formation of bed-sores; open and drain secondary abscesses. Support the general health of the patient with plenty of light digestible nourishment and allow him unlimited supplies of fluid such as milk, barley water, or soda-water.

PYROSIS (See Heartburn).

PYREXIA, DIET DURING.

In this condition catarrh usually invades the entire course of the alimentary canal and of the ducts which lead into it, and the digestive capacity of the patient is reduced to that which is the normal state of the infant during the first six months of life, more especially in respect of the inactivity of salivary and pancreatic functions. Hence, theoretically, and amply confirmed by experience, the value of a diet consisting mainly of milk and meat juices.

The milk should be fresh (not preserved) and scalded (not boiled) and should be diluted with barley water to the extent of about one-third of its bulk. If diarrhoea is present add about one-sixth of its bulk of lime water; and if constipation is present add sodium citrate instead (20 grains to the pint).

Beef juices may be given at intervals in the form of well-made beef-tea, mutton-tea, chicken or veal-tea. Draughts of iced water regularly administered are always grateful to fever patients. Fruit such as grapes and oranges are of great use and cooked apples may also be given. When more nourishment is required add yolks of eggs to the milk or beef juice, or give with brandy as egg-flip.

QUARANTINE PERIODS IN INFECTIOUS DISEASES.

The quarantine periods (in days) required after the latest exposure to infection are in (a) chicken pox, 20 days; (b) diphtheria, 12; (c) German measles, 20; (d) measles, 16; (e) mumps, 24; (f) scarlet fever, 10; (g) smallpox, 16; (h) typhoid fever, 23; (i) typhus, 14; (j) whooping cough, 21.

The above quarantines are fixed at about two days longer than the recognized incubation period of the disease in question. They can be considered safe only if thorough disinfection be carried out at the beginning of the quarantine period.

Although the above list indicates the day on which a boy or girl may usually return to school after being exposed to infectious or contagious disease, the period of absence may usually be extended by the school medical officer if in his judgment such extension be essential to the safety of the school.

For similar figures relating to persons who have suffered from infectious diseases see **Infection Period, Cessation of.**

RABIES (See **Hydrophobia**).

RAILROAD SPINE AND BRAIN.

Treatment. Mental and physical rest, massage, electricity and proper feeding. Narcotics should be avoided. The general treatment is similar to that for **Neurasthenia** and **Hysteria**, which see. Medi-

cines however are not of much avail in this disorder except for their moral effect. Litigation as a rule has a bad effect on the patient. The aim of the physician should be to divert his patient's thoughts from morbid channels, and to arouse his interest in extraneous matters not connected with himself or his troubles.

Legal relations. Do not on the one hand attach too much importance to the subjective symptoms and complaints, and on the other, knowing from experience how much exaggeration, both conscious and unconscious, occurs in cases of this kind, do not attach too little importance to the same facts. When the patient is obviously exaggerating, when there is a motive to deceive, and in many other cases as, for instance, in cases of coma and mental derangement, in which the patient is unable to give information, the diagnosis and prognosis must be chiefly based upon the physical signs and objective symptoms. Although there may be no organic lesion, it would not be fair to the patient to make light of his symptoms or to advise an early settlement and a speedy return to work. On the other hand the physician should beware of making suggestions which may magnify his patient's symptoms.

The medical witness should in all cases endeavor to be the mouthpiece of medical science and nothing more. Neglect of this has often brought discredit on the medical profession. Yet where there is room for honest doubt the physician should protect the interests of his patient. In all cases of litigation between a poor man and a rich corporation or employer, it is the bounden duty of the physician to protect the poor; the rich always can, and do look after themselves.

Take the case of a poor, perhaps also ignorant man who is badly shaken up in a railroad or street car accident. After he has recovered from his fright he finds that he can walk and is apparently

uninjured. If he is seen soon after the accident by a railroad claim agent he may be persuaded to sign away his claim for compensation for a quite inadequate pittance. If, after a few weeks he develops the well-known symptoms of "railroad spine" his legal position is weakened by the premature settlement, a manifest injustice.

RANULA. (CYSTS UNDER TONGUE.)

The most satisfactory procedure is to snip off the top of the cyst, allow the contents to escape and apply a strong solution of tincture of iodine or a strong solution of chloride of iron. In stubborn cases, the solid stick nitrate of silver may be rubbed over the interior of the cyst.

RAYNAUD'S DISEASE. (SYMMETRICAL GANGRENE.)

For the severe pain that is frequently present, $\frac{1}{4}$ grain morphine sulphate with $\frac{1}{100}$ grain atropine sulphate should be given either by mouth or hypodermically.

The limb should be elevated and hot bottles placed to it. Give hypodermics of $\frac{1}{100}$ grain of nitroglycerine every four hours to dilate the arteries when pain is severe.

The application of an Esmarch's constrictor for a few minutes often restores the circulation.

When gangrene occurs we should wait for complete demarcation before advising amputation.

RECTAL FEEDING (See Feeding, Rectal).

RELAPSING FEVER. (FEBRIS RECURRENTS.)

The treatment is symptomatic; no known drug will cut it short. Quinine is of no use. When the disease begins give a purgative:

- | | | |
|------------------|-----------------------------------|-----------|
| R. | Hydrarg. chlor. mit..... | grs. xii |
| | Sacchar. lactis..... | grs. xxiv |
| | Extr. colocynth..... | grs. xii |
| M. et ft. chart. | No. xii. | |
| Sig. | One every two hours if necessary. | |

For the severe muscular pains, phenacetin, aspirin, antifebrin, etc., are of the most benefit:

R.	Phenacetini.....	5i
	Kryofini.....	5i
	Codein. phosphat.....	grs. ii

M. et ft. chart. No. xii.

Sig. One every three hours.

The patient should be carefully nursed. He should be isolated in the fresh air and should take only milk and broths while the fever lasts. Use cold sponging every two or three hours to keep the temperature down. Twenty grains of trional may be given at night for insomnia.

RENAL CALCULUS. (NEPHROLITHIASIS, STONE IN THE KIDNEY, GRAVEL.)

The treatment is surgical if the stone is large. There is no other method of dispelling the stone. Its further increase in size may be prevented by appropriate treatment.

If from urinary examination it can be determined that the stone is composed of uric acid then alkaline treatment should be adopted. Large quantities of alkaline waters should be taken as Saratoga, Vichy, Vals, Buffalo lithia water, etc.

The diet should consist chiefly of vegetables and milk-foods, using white meat sparingly.

If the stone is composed of phosphates, then the opposite treatment should be adopted. The urine should be acidified by the administration of benzoic or boric acid:

R.	Acid. benzoic.....	3ii
	Div. in caps. No. xxiv.	
	Sig. One four times a day.	

Or:

R.	Acidi borici.....	5ii
	Div. in caps. No. xxiv.	
	Sig. One four times a day.	

In the dietary, red meats are allowable.

RENAL COLIC.

A hypodermic of $\frac{1}{4}$ grain of morphine should be given first and followed by a few whiffs of chloroform until the morphine begins to act. Hot linseed poultices should be applied to the loins and if convenient the patient should be put in a hot bath.

If relief is not obtained in half an hour give another hypodermic of $\frac{1}{4}$ grain of morphine.

As soon as the stone drops into the bladder immediate relief is obtained. If large it will remain in the bladder and enlarge, if small it will pass out through the urethra. Occasionally it sticks in the urethra and will require instrumental delivery.

REST CURE (See Weir Mitchell Rest Cure).

RETENTION OF URINE.

The first indication in treatment is to empty the distended bladder with a sterile catheter of either hard or soft rubber, preferably the hard. This must be done under the strictest antiseptic precautions.

Occasionally, placing the patient in a hot bath is sufficient to start the contraction of the bladder.

If retention occurs after childbirth the catheter should not be used if placing the patient in the upright position enables her to empty the bladder.

When difficulty is experienced in passing the catheter, it is sometimes of considerable help to pass one finger in the rectum to assist the point of the catheter to pass through the urethra.

The ordinary causes of retention are stricture, enlargement of the prostate, impaction of a calculus in the canal, gonorrhea, hysteria, etc.

When it is found impossible to pass a catheter into the bladder and the symptoms are urgent, it is best to pass a trocar into the bladder above the pubis, and then tie a rubber catheter in place.

If the retention is due to stricture the latter should receive prompt attention, that is, dilatation or cutting.

If due to enlargement of the prostate, then it becomes necessary to remove the gland because it usually does not take long before the continuous use of the catheter results in infection of the bladder.

If due to gonorrhea, use the drugs recommended under that heading, but if there is much swelling of the urethra, then it becomes necessary to put the patient in a hot bath.

If due to temporary paralysis of the bladder, as in typhoid fever or after accident, a soft rubber catheter should be used to draw off the accumulated fluid.

If the retention is due to hysteria, use the cold douche, moral suasion, and anti-hysterical remedies, as:

R.	Sodii bromidi.....	3ii
	Potass. bromidi.....	3i
	Tinct. hyoscyain.....	3ii
	Aquæ.....q. s. ad.	3ii

M. Sig. One teaspoonful in water every three hours.

If this does not do any good then we must use the catheter.

Frequently there is a dribbling of urine which may mislead the practitioner or nurse into thinking that the bladder is not full, but by placing the hand on the abdomen the conical bladder may be found to extend to the umbilicus, showing that there is really retention.

In cases of retention of urine do not give diuretics, they only aggravate the trouble.

RETINITIS, ALBUMINURIC.

The treatment is that of nephritis. Special applications to the eye are useless.

RETINO-CHOROIDITIS.

Give $\frac{1}{2}$ of a grain of pilocarpin hypodermically to produce sweating. Mercury and potassium iodide should be pushed internally.

Atropine must be used to paralyze accommodation:

R.	Atropine sulphat.....	gr. i
	Aqua destillat.....	3ii

M. Sig. One drop in eye twice a day.

Leeches and blistering the skin of the temples are also of benefit. The patient should wear dark glasses.

RETINITIS, SYPHILITIC.

Prompt treatment with anti-syphilitic remedies is of the greatest importance. Inunctions with mercury and increasing doses of potassium iodide should be given. Hot baths and leeches to the temple, help to lessen the pain. A hypodermic of $\frac{1}{10}$ grain of pilocarpin muriate helps to control the pain. (See Syphilis, Treatment of.)

RHEUMATISM, ACUTE ARTICULAR.

No drug can take the place of salicylate of soda. It should be given in 15 grain doses every three hours for at least 24 hours, thereafter every four to six hours. It is best given in pepsin or in very hot water, on account of its nauseating properties. Aspirin or salicin in 5 to 10 grain doses may be given instead at the same intervals. They are not as liable to irritate the stomach or produce nausea. Salol is also frequently used in 5 to 15 grain doses, but the kidneys must be carefully watched.

The following prescriptions are equally good:

R.	Sodii salicylat.....	3vi
	Sodii bicarb.....	3iv
	Aqua.....	3i
	Ess. pepsin..... q. s. ad.	3iii

M. Sig. One teaspoonful in hot water every three hours.

Or:

R.	Sodii salicylat.....	ʒ vi
	Vin. colchic. radic.....	ʒ iv
	Aquæ.....	ʒ i
	Elix. digestiv. co. N. F.....q. s. ad.	ʒ iii

M. Sig. One teaspoonful in hot water every three hours.

Or:

R.	Aspirin.....	ʒ i
	Salicin.....	ʒ i

M. et ft. chart. No. xii.

Sig. One every three hours with hot water.

What is known as the alkaline treatment may be used in conjunction with the salicylates. The following is one of the best combinations in the alkaline treatment:

R.	Potass. citrat.....	ʒ ii
	Potass. acetat.....	ʒ iv
	Sodii bicarb.....	ʒ iv
	Potass. bicarb.....	ʒ i
	Aquæ.....	ʒ ii
	Infus. calumb.....q. s. ad.	ʒ iv

M. Sig. One teaspoonful in a glass of water three times a day.

Local treatment. The affected joints should be wrapped up in cotton after the application of some soothing liniment, as:

R. Lin. belladonn.

Lin. aconiti.

Lin. saponis.....āā ʒ i

M. Sig. Rub in thoroughly three times a day.

Or:

R.	Acid. salicylic	ʒ iss
	Ol. terebinth.....	ʒ i
	Adipis lanæ hydros.....q. s. ad.	ʒ ii

Painting painful joints with three coats of tincture of iodine is frequently very soothing.

The affected joints must be kept at absolute rest with or without splints.

The patient should be kept in bed for at least two to four weeks in order to lessen the chances of heart complications. He should lie between blankets as the profuse perspiration may make him very uncomfortable if he were to lie between sheets. The excessive perspiration may be checked by sponging with warm water and alcohol. The bowels should be kept free by:

R. Hydrarg. chlor. mit grs. ii
Sacchar. lact. grs. xii

M. et ft. chart. No. xii.

Sig. One every 15 minutes followed in four hours by a bottle of citrate of magnesia.

When convalescence is established give the patient tonics, as iron, cod liver oil, etc.

RHEUMATISM, DIET IN.

The following should be forbidden: beef tea, meat extracts, pastry, sugar, sweets and alcohol.

During the stage of fever and joint inflammation fluids only should be given such as milk, diluted with soda water and lime water or peptonized. Also thin oatmeal gruel, barley water, fresh lemonade and weak tea.

After the febrile stage is over give light clear soups and broths flavored with fresh vegetables and herbs, with a little pounded chicken, light puddings, bread and milk.

Two weeks after the temperature is normal allow bread and butter, eggs, white fish, chicken, pounded lean meat, mutton, veal, stewed celery, mashed potatoes, spinach asparagus and the pulp of fresh fruit.

May be Eaten Freely.

Milk, sweet, and butter-milk.	Most dried fruits. Uncooked cabbage.
Fresh fish.	Corn, green, canned and hominy.
White meats.	
Ready-made (flake) breakfast-foods.	Cucumbers. Beets.

Potatoes, Irish and sweet.	Lettuce.
Butter and cheese.	Turnips.
Macaroni, spaghetti, vermicelli.	Peaches.
Oatmeal, rice, barley, sago, tapioca.	Pears.
Vegetable soups.	Grapes.
	Raisins.
	Apples.

To be Eaten in Moderation.

Red and dark meats.	Sweet cider, lemonade and fruit juices.
Fat bacon, lard, suet.	Tea, coffee and cocoa.
Game.	Most nuts except peanuts.
Puddings, without eggs.	Dried peas, beans and lentils.
Beef, pork and mutton.	Kale and spinach.
Meat soups.	
Oysters and oyster soup.	
Bananas.	

To be Avoided.

Tomatoes.	Gooseberries.
Celery.	Strawberries.
Rhubarb.	Peanuts.
Pickles.	Hot breads and cakes of all kinds.
Salted and fried meats	Custard.
Salt and preserved fish.	Greasy pastries.
Mushrooms.	Heavy meat meals of all kinds.
Liver.	Soft drinks.
Sweetbreads.	Beer and whisky.
Pancreas.	
Veal.	

RHEUMATISM, MUSCULAR. (MYALGIA.)

When the pain is very severe it is necessary to give morphine internally and hot applications locally.

Sodium salicylate should be given either with or without other coal tar products as phenacetin, etc.:

R. Sodii salicylat.....	ʒiv
Vin. coichic. radic.....	ʒiv
Aquæ.....	ʒiss
Ess. pepsin..... q. s. ad.	ʒiii

M. Sig. Half a teaspoonful in half a glass of hot water every three hours.

Massage and electricity are of some benefit. Friction with some good stimulating liniment is often of some benefit to the patient, as:

R. Chloral hydrat.

Camphor.

Ol. cajuput.....āā 3i
Lin. ammon.....q. s. ad. 3iv

M. Sig. Liniment. Use twice a day.

RHEUMATOID ARTHRITIS. (CHRONIC RHEUMATISM, ARTHRITIS DEFORMANS.)

The treatment is frequently very unsatisfactory.

Internally. Give tonics such as cod liver oil, arsenic, and syrup of the iodide of iron:

R. Emuls. ol. morrhuae cum hypophosphit. U. S. P..... 3xii

Sig. A teaspoonful three times a day.

Or:

R. Syr. ferr. iodid..... 3iii

Sig. Half a teaspoonful in water three times a day after meals.

The patient should be placed in the best hygienic surroundings in a warm, dry climate where plenty of sunshine is to be enjoyed. A cold, damp and variable climate is bad. Flannel should be worn next the skin.

During the acute exacerbations of the disease when the affected joints become swollen and painful, give:

R. Quinin..... grs. xlviii
Phenacetin..... grs. lxxx
Sodii salicylat..... 3iii

M. ft chart. No. xxiv.

Sig. One every three hours after meals.

The following will also be found useful:

R. Liq. potass. arsemite..... m. xlviii
Potass. iodid..... 3iv
Sodii salicylat..... 3iv
Syr. sars. co..... 3i
Aq. menth. virid..... q. s. ad. 3iii

M. Sig. One teaspoonful in water after meals.

Local treatment. Great benefit is obtained from hot baths, hot douches and dry heat, also from rubbing the affected joints with a saturated solution of menthol in olive oil (25 grs. of menthol to the ounce of olive oil).

When the patient can afford it, hydropathic treatment at such places as the Hot Springs of West Virginia and Arkansas is often most valuable.

Massage and electricity to the affected joints and atrophied muscles are often useful. The faradic current may be applied to the atrophied muscles, and the galvanic current to the joints. Electric baths are useful in a few cases.

Where there is leucorrhea, local treatment (douching, astringent injections, etc.) together with internal tonic remedies (iron, arsenic, etc.) should be employed.

RHINITIS, ACUTE. (ACUTE NASAL CATARRH.)

A cold can frequently be aborted by a hot foot bath, a full dose of Dover's powder (15 grs.), and a very hot glass of lemonade or whisky before going to bed, followed next morning by a saline aperient, e. g., Seidlitz powder. Hot baths and Turkish baths are also useful, as is also insufflation of menthol snuff. The nose may be sprayed with an atomizer every four hours containing an alkaline solution, e. g., Dobell's:

R. Sod. bicarb.

Sod. borat.....	āā grs. xv
Acidi carbol.....	grs. viii
Glycerini.....	᷄ii
Aquæ.....	᷄viii

During the first 24 hours when the nose is discharging large quantities of serous fluid, give:

R. Tinet. belladonn. ᷄iv

Sig. Five drops every three hours until the discharge lessens.

The salicylates are of considerable use throughout the

attack, especially to prevent the clogging of the nose with mucopurulent material; if much frontal headache is present give:

R.	Aspirin.....	3iss
	Kryofin.....	3i
	Caffein. citrat.....	grs. xii
M.	et ft caps. No. xviii.	
Sig.	One every three hours with hot water.	

RHINITIS, CHRONIC. (CHRONIC NASAL CATARRH.)

The treatment should be local and constitutional.

Local treatment. Consists in relieving the irritability of the mucous membrane, checking the secretions and preventing their accumulation in the nose.

Watery applications should be avoided because they may increase the swelling and have little influence on the mucopurulent secretion.

Oily applications are useful because they coat the surface and protect it from irritation. The following answers this purpose:

R.	Menthol.....	grs. vi
	Thymol.....	grs. 1½
	Oil of cloves.....	m. ix
	Albolene.....	3iii

M. Sig. Spray into nose three times a day.

Or:

R.	Terebene.....	m. xxx
	Thymol.....	grs. iii
	Menthol.....	grs. vi
	Ol. cinnamon.....	m. iii
	Alboiene.....	3iii

M. Sig. Use three times a day.

Should it become necessary to wash out the nasal cavities, use Dobell's solution:

R.	Ac. carbolic.....	grs. vi
	Sod. bicarb.....	grs. xxx
	Sod. biborat.....	grs. xxx
	Glycerin.....	5i
	Aquæ.....q. s. ad.	3iv

M. Sig. Spray into nose twice a day.

Sedative powders give considerable relief:

R. F.	Ac. boric.....	5iiss
	Iodol.....	5i
	Amyli.....	5ss
	Sacchar. lact..	3ii

M. Sig. Blow into nose three times a day.

In cases where there is great sensitiveness it frequently becomes necessary to cauterize the spot.

RICKETS. (RACHITIS.)

Improve the general nutrition of the child by good hygienic conditions (sunlight, mountain air or sea air), and by a good diet (milk, cream, eggs, raw meat-juice, fruit jellies, and juices of fresh fruits, especially orange juice).

When there is anaemia give:

R. F.	Olei morrhuae.....	3iss
	Olei sassafras.	
	Pulv. acac.	
	Pulv. sacchar. q. s. ad. emuls.	
	Syrup. ferr. iodid.....	3iii
	Aquaæ..... q. s. ad.	3iii

M. Sig. One teaspoonful to a dessertspoonful after meals.

Phosphorus is of the greatest service in allaying nervous symptoms, like insomnia, convulsions, tetany or laryngospasm. It stimulates bone formation and favors dentition. It may be given in $\frac{1}{100}$ to $\frac{1}{200}$ grain doses in pill form or as the oleum phosphoratum (1 per cent solution):

R. F.	Olei phosphorat	5i
	Olei morrhuae.....	3iii
	Pancreatini.....	3iv
	Acaciaæ.....	3i
	Aquaæ..... q. s. ad.	3viii

M. ft. emulsum.

Sig. One teaspoonful with cream or milk three times a day an hour after food.

Phosphorus may also be given in 5 to 15 minim doses of the Nat. Form. elixir three times a day.

If the child is breast fed ascertain the quality of the mother's milk and supplement it with properly modified cow's milk if necessary. The diet should contain little carbohydrates but should be rich in proteids and fats, a condition which few, if any, of the proprietary infant foods fulfil.

Surgical intervention may be necessary to correct deformities of the extremities. To relieve kyphosis the child should sleep on a hard, flat mattress without a pillow. The child should not be allowed to assume a posture which will increase any deformity.

RIGOR. (CHILLS.)

This is frequently the initial symptom of an acute infectious disease as pneumonia, pyemia, small-pox, typhoid fever, tonsilitis, etc. In some diseases the rigor is of short duration but very severe, in other diseases it may extend over a few days.

Put the patient to bed and cover him up with blankets. Place hot water bottles to the extremities and give a hot drink of brandy or lemonade.

Rigors following the use of the catheter may be promptly relieved by a hypodermic of $\frac{1}{4}$ grain of morphine.

Nervous chills may be controlled by nerve sedatives as sodium or strontium bromide in 15 to 20 grain doses every three or four hours.

Quinine in chills is too slow in action. Nitrite of amyl and chloroform sometimes promptly cause their cessation.

RINGWORM OF BODY. (TRICHOPHYTOSIS COR-PORIS, TINEA CIRCINNATA.)

The treatment is simple. Any irritating application that removes the epidermis will do:

R. Acidi carbolici pur..... 3*i*

Sig. Paint with brush over patch once.

Or:

R. Ungt. chrysarobin. (10%) 3*i*

Sig. Apply once.

The physician should personally make the applications.

RINGWORM OF SCALP. (TRICHOPHYTOSIS CAPITIS.)

This extremely contagious disease requires long-continued patient treatment to eradicate it. The physician should not allow the patient to infect others carelessly.

The object in treatment is to destroy the fungus. This is easy when it affects non-hairy portions but extremely difficult in such places as the scalp or beard.

The hair should be cut close and the scalp vigorously shampooed daily with soft soap and then thoroughly rubbed with carbolized oil (1 in 20). Then apply the following ointment:

R. Chrysarobin 3*i*
Hydrarg. ammon grs. xx
Liq. carb. deterg m. x
Lanolin 3*i*
Adipis 3*vi*

M. Sig. Rub thoroughly into the scalp for ten minutes daily.

Or:

R. Acid. salicyl grs. xxx
Ether 3*i*

M. Sig. Rub in thoroughly twice a day.

Epilation is also of service in ringworm.

The lining of caps should be frequently changed or paper placed in them.

In infants a few weeks old the disease is easily cured. Use the following:

R. Sulphur 3*i*
Ac. carbolic 3*ss*
Lanolin 3*i*

M. Sig. Apply once a day.

ROCKY MOUNTAIN FEVER. (TICK FEVER.)

The tick-bite should be cauterized with 95% solution of carbolic acid.

Sulphate of quinine in 15 grain doses every four hours should be given persistently from the beginning of the fever.

The diet, general management, and control of temperature are the same as in Typhoid Fever, which see.

The rest of the treatment is symptomatic. Plenty of water to flush out the kidneys, Dover's powder, small doses of morphia for the severe pains, and aperients to regulate the bowels.

RUPIA.

The treatment is that of syphilis, of which this skin disorder is a manifestation, but the mercury must not be given in full doses. The eruption usually occurs after mercury has been given in too large doses and has disagreed and been laid aside for a time. Give:

R. Liquoris arseni et hydrarg iodid..... 3iv
Aquæ destillatæ..... 3iv

M. Sig. One or two drops three times a day.

Sometimes it may be advisable to suspend the mercury for a few weeks and give large doses of iodides instead.

Locally do not disturb the crusts as they usually fall off after the ulceration heals.

If an ulcerated surface results in spite of everything, a fumigation bath with sublimed calomel is of great value, or give:

R. Iodoformi..... 3ii

Sig. Dust upon lesion if scabs are removed.

Or:

R. Red mercur. oxid..... grs. vi
Ichthyol..... 3i
Lanolin..... 3vi
Vaseline..... 3iv

M. Sig. Apply locally with care once a day.

SALISBURY DIETETIC TREATMENT.

This system is intended to influence diseases produced by "unhealthy and indiscreet feeding," obesity, and various forms of dyspepsia, especially acid dyspepsia, due to imperfect digestion of carbohydrates. Many dyspeptics can digest a meal of proteids with benefit who are unable to dispose of a mixed meal of proteids and carbohydrates.

The essentials of the Salisbury system are the taking of hot water and a diet consisting of animal food, finely minced, and not too much cooked, in quantities varying from half to three pounds each day. No bread or vegetable food is allowed.

Such a proteid dietary naturally throws a very heavy burden on the kidneys, and for its continuance necessitates a large quantity of water to flush these organs. The water should be taken as hot as the patient can bear it; one pint in bed in the morning or on rising, one pint an hour and a half before each meal, and a half an hour before bedtime. It should be slowly sipped, so that the time taken is five to fifteen minutes, uncomfortable distension being thus avoided.

The gristle, fat, and tougher connective tissues must be removed while preparing the meat.

The body should be washed twice daily with soap and water, and afterwards rubbed with equal parts of glycerine and water. This promotes the eliminating function of the skin. Regular exercise, short of fatigue should be taken; or where this is impossible, the body should be well rubbed from head to foot for from ten to twenty minutes three times daily.

SCABIES (See Itch).

SCARLET FEVER, PROPHYLAXIS OF.

When the disease is recognized, remove the patient to a clean well-ventilated room, preferably at the top of the house. One attendant should take entire

charge of the patient and should have no communication with the rest of the family. Other children in the family should not be allowed to go to school and if sent away they should be kept from other children until the stage of incubation has passed. To prevent the physician from carrying the disease to other patients, he should put on a cap covering the head and back of the head, a gown reaching from the neck to the floor and rubber overshoes before entering the patient's room. When these are removed they should be dipped in corrosive sublimate solution and hung up to dry in an ante-room for use next day. Handkerchiefs that have received the discharges from the nose and mouth, as well as clothing and bed linen that have come in contact with the sick person should be soaked in carbolic solution and then boiled in soapsuds for one hour. They should be laundered separately from the household articles. The sick-room should be thoroughly aired several times a day and swept frequently, tea leaves being scattered on the floor to prevent the dust from rising. While the room is being aired the patient should be protected from draughts by a blanket thrown over his head. The temperature of the room should not exceed 70° F. nor fall below 65° F. When the patient is beginning to recover and the skin is peeling off, the body should be washed daily in warm soapsuds, and afterwards rubbed with carbolated vaseline. This should be continued until all roughness of the skin has disappeared. If desquamation is complete the patient may be discharged from quarantine at the end of the sixth week, although to secure absolute immunity it is safer to delay until the eighth. Cases complicated with nephritis, empyema, otitis or glandular abscess should be detained until the cure is completed. The Health Department should be immediately notified when the patient has recovered and disinfectors will be sent to disinfect the room, bedding, clothing, etc. The

room should not be occupied until it is thoroughly disinfected.

SCARLET FEVER, TREATMENT OF.

The sick room should be kept at a uniform temperature of about 70° F. and should be large and well-ventilated. The bed-clothing should be light and the patient should wear a light flannel night-dress. The diet should consist of milk, broths, junket, kumiss, egg-white, gruels, ice cream, and fruit juices. The thirst may be relieved by plenty of water which also keeps the secretions active. After the fever has subsided a soft diet may be allowed but the proteids should be restricted for several weeks.

Stimulation in the milder forms of fever is unnecessary, but when evidences of heart enfeeblement arise they must be combated with such drugs as alcohol, strychnine and digitalis. To a child of four with weak, rapid and irregular pulse one drachm of whisky or brandy may be given every second hour, and the dose may be increased if necessary. Tincture of digitalis in doses of one drop every five or six hours may also be of benefit for a child of 5 years, or strychnine in doses of from $\frac{1}{200}$ to $\frac{1}{100}$ grain.

When the fever is not very high it may be neglected or the following mild febrifuge may be given to a child 5 years old:

R.	Spiritus aether. nitros.....	5 vi'
	Liq. ammon. acetat.....q. s. ad.	3 iii

M. Sig. One dessertspoonful with water every three hours.

Cold or tepid sponging is also very refreshing and beneficial.

When the temperature rises above 103° F. it may be reduced by cold applications to the head, an ice-coil over the heart and cold sponging or cold packs.

Thoroughly sponging the patient three or four times

daily with carbolized water (1 to 60) may protect the patient from disastrous complications and sequelæ.

For the cerebral symptoms the application of an ice-cap and the administration of bromides or small doses of chloral, phenacetin or acetanilid may be employed. These not only control the restlessness and insomnia but phenacetin and acetanilid are useful also for their antipyretic effect. Acetanilid is better for young children and may be given in doses of one-third as many grains as there are years in the child's life. For older children phenacetin combined with quinine in capsules may be given

When the cerebral symptoms are due to the high temperature, cold bathing is most beneficial.

The bowels should be kept freely open throughout the disease; small doses of calomel followed by a saline aperient being of service at the onset. High intestinal irrigation with hot water (112° F.) is of the greatest service as an aperient, stimulant and diuretic, and aids in the elimination of the fever poison from the system.

The care of the nose, throat and ears is of the greatest importance. The nose and throat should be cleansed with Dobell's solution or a (25%) solution of hydrogen dioxide. If there is severe tonsillitis give:

R.	Potass. chlorat.....	grs. xx
	Tinct. ferr. chlor.	
	Glycerini.....	ââ 3ss
	Aquæ.....	q. s. ad. 3ii

M. Sig. Apply to the tonsils several times a day with a cotton swab.

The tympanic membranes should be inspected daily for any signs of bulging, and if necessary, immediate paracentesis should be performed and the opening kept free so long as there is any tendency to discharge. The discharging ear should be irrigated freely with warm solution of boric acid every four hours.

In acute otitis media the application of a leech behind

the ear and gently syringing the auditory canal with hot water are very beneficial.

To guard against nephritis the patient must carefully avoid exposure to draughts, especially after the febrile symptoms have disappeared. The urine should be examined daily. As prophylactics, urotropin and digitalis are highly recommended.

If in spite of all precautions nephritis develops, dry cupping over the loins and warm fomentations are of benefit. The danger to the kidney may be warded off by stimulating the skin with warm baths, hot packs, vapor baths, or a diaphoretic like pilocarpin ($\frac{1}{6}$ to $\frac{1}{8}$ grain). Saline aperients are also indicated, and when the urine is scanty, unirritating diuretics like potassium acetate or digitalis:

R.	Spiritus æther. nitros	3iv
	Syrupi.....	5ii
	Liq. potass. citrat.....q. s. ad.	3iii
M.	Sig. One teaspoonful in water every two hours.	
	Or, for a child of 8 to 10 years:	

R.	Infusi digitalis.....	3iii
	Sig. One teaspoonful in water three times a day.	

The vomiting which usually occurs at the beginning of the disease is best controlled by withholding all food and milk and giving the following internally. For a child from 5 to 10 years of age give:

R.	Bismuth. subnitrat.....	3iss
	Cerii oxalatis.....	grs. iv
	Hydrarg. chlor. mit.....	gr. i
	Sacchar. lactis.....	grs. xii

M.	et ft. chart. No. xii.	
	Sig. One every three hours on a teaspoonful of hot water.	

The exudative sore throat which so frequently accompanies scarlet fever is not benefited by diphtheria antitoxin unless culture shows that it is complicated with diphtheria. Swabbing the throat with pure hydrogen dioxide every hour is of more benefit.

SCHOTT'S TREATMENT.

This consists of 1st—baths in warm springs containing sodium and calcium chloride, carbonate of iron, and carbonic acid gas. The baths last from five to twenty minutes and are given once daily for three days and then intermittent. 2d—resisted movements carefully and gradually employed. These exercises are made against slight resistance applied by the physician or a trained assistant. Before beginning the exercises proper, the employment of massage is advisable.

The patient should not hold the breath but should breathe with regularity. Exercises which cause an intermittent heart action must be omitted. Only moderate resistance should be employed at first. No movements should be used which bring the hands above the level of the shoulders, for raising the hands increases the arterial tension and retards the heart's action. Lateral and rotatory movements of the body are included. They should never be continued until the patient is tired.

The following are some of the resistance movements. 1st—The arms are extended in front of the body at the level of the shoulder, with the palms of the hands touching. The two arms are then moved slowly outwards till they are in a line with each other; they are then brought back to their original position. 2d—The arm and hand hanging down with the palm turned forward, the forearm is flexed upon the arm (which is kept still) until the fingers touch the shoulder. The forearm is then extended to its original position. This is first done with one arm and then with the other. 3d—Same as No. 1, but with fists clenched. 4th—Same as No. 2, but with fists firmly clenched. 5th—The body is bent forward and then brought back to the erect position, the knees not being moved. 6th—The body is rotated, without any movement

of the feet, first to the right and then to the left, and then back to its original position. 7th—Supporting himself by placing both hands in front on the back of a chair, the patient first flexes one leg and then the other upon the thigh as far as he can. 8th—Each leg in turn is abducted as far as possible, the knees being kept straight, the patient resting on one or other hand the while. 9th and 10th—Flexion and extension first of the wrists, and second of the ankles.

In resisting these movements the operator places the palm of his hand on that side of the patient's limb or body toward which the movement is to be made. In the movements of the wrist the operator closes his thumb and forefinger round that joint.

Contra-indications to Schott's treatment are chronic nephritis, aneurysm, arteriosclerosis, angina pectoris, acute cardiac insufficiency, tendency to haemorrhage and embolism.

SCIATICA.

Search for and treat the cause, e. g., rheumatism, gout, syphilis, rectal disease, etc.

If due to rheumatism the salicylates must be given, see **Rheumatism**.

If due to syphilis treat with mercury and potassium iodide as recommended under **Syphilis**.

Rest in bed should be insisted upon, and a long splint should be applied from the axilla to the heel, and the entire leg bandaged in cotton.

Counter-irritation by blisters, hot iron, liniments and electro-cautery may be used. The following makes a good liniment in this disease:

R.	Ol. gualtheriae.....	5 <i>i</i>
	Chloroform.....	3 <i>iv</i>
	Tinet. aconit.....	5 <i>iv</i>
	Tinet capsici.....	5 <i>ii</i>
	Menthol.....	grs. xxx
	Spt. vin. rect.....	q. s. ad. 5 <i>iv</i>

M. Sig. Apply freely over seat of pain twice a day.

Internally many drugs are recommended but few are of value. Phenacetin, antipyrin, acetanilid, salicyrin, or aspirin may be tried:

R. Antipyrini.....	5ii
Phenacetin.....	3ii
Quin. sulphat.....	grs xxxvi
Aspirini.....	5ii

M. et ft. chart. No. xxiv.

Sig. One every four hours.

If the pain is very severe resort must be had to morphine, always remembering, however, that this is one of the diseases in which the morphine habit is easily acquired. It may be given hypodermically in $\frac{1}{4}$ grain doses or it may be given in the following mixture:

R. Morph. sulph.....	grs. vi
Atrop. sulph.....	gr. $\frac{1}{4}$
Tinct. aconit.....	m. xxiv
Ext. cannab. indicæ.....	m. lxxii
Elix. simplic.....	q. s. ad. 3iii

M. Sig. One teaspoonful every three hours until relief is obtained.

Freezing the painful area is also of benefit in some cases:

R. Ethyl chloride.....	one tube
------------------------	----------

Sig. Use as spray from tube until painful area is frozen.

Hypodermic injection of the following, directly down on the nerve will also relieve pain:

R. Morph. sulph.....	gr. i
Cocain. hydrochlor.....	grs. ii
Aquaæ destillat.....	3iv

M. Sig. Inject one teaspoonful deep down on the nerve.

The fluid extract of gelsemium is also of great benefit in some cases. It should be given in 2 minim doses every three or four hours until tingling in pharynx or fingers is produced

Nerve stretching may be tried if all other methods fail. Place the patient under anaesthesia and strongly flex the hip, extend the knee, flex the foot dorsally and immobilize the pelvis firmly.

Direct exposure of the nerve is no longer practiced.

SCLERODERMIA.

It is of the utmost importance to protect the patient from exposure to cold winds and draughts. He should be clothed in flannel.

The general nutrition of the body should be kept up to the highest possible standard with cod liver oil and ferruginous tonics.

Mercury, potassium iodide, and arsenic are useless.

Massage with olive oil or other simple ointment frequently restores mobility to the part.

SCLEROSIS, DISSEMINATED.

Attend to the general health of the patient and avoid nervous stress and strain. Arsenic and nitrate of silver are of special benefit. Massage, electricity, especially the faradic current, and X-ray treatment are often beneficial. The systematic employment of co-ordinated muscular exercises (Fränkel's treatment) is also of some service. Attention to the condition of the bladder is of the utmost importance in those cases in which the urinary reflex is markedly deranged. Bed-sores should be guarded against, although this is by no means easy.

SCOLIOSIS. (LATERAL CURVATURE OF SPINE.)

The treatment resolves itself into three measures: 1st, preventive; 2d, forcible correction; 3d, gymnastic exercises.

Preventive measures. Correct malpositions such as the bad seating of children in schools; usually desks that are too low will help to cause the deformity. If patient has torticollis or a short leg, correct these conditions.

Forcible correction. May be obtained by suspending the body by the shoulders and making forcible pressure and counter pressure at certain points.

Gymnastic exercises. These may be given without apparatus, or with such apparatus as weights and bars, bells, etc. In this way the general muscular system may be improved or special weak muscle groups may be strengthened.

SCURVY. (SCORBUTUS.)

Prophylaxis. This disease is very easily prevented. Ships making long voyages should have on board a good supply of fresh vegetables.

Treatment. The disease can only be cured by attention to diet. The patient should receive plenty of fresh meat and green vegetables such as spinach, watercress, cabbage, celery, onions, lettuce, asparagus, etc. Fruit juices as lemon and orange should be given daily. The juice of one lemon or two oranges is sufficient.

Bitter tonics should be given as:

R.	Tinct. nuc. vomic.....	ʒiv
	Tinct. quassiae.....	ʒii
	Tinct. gentian.....	ʒii
	Tinct. cardamom.....	ʒiii
	Tinct. calumbæ.....	ʒii
	Ess. pepsin..... q. s. ad.	ʒiii

Sig. One teaspoonful in water three times a day before meals.

Treat the sore mouth and gums by antiseptic mouth-washes as:

R.	Sat. sol. potass. chlorat.....	ʒviii
----	--------------------------------	-------

Sig. Use as mouth-wash every three hours.

Or:

R.	Potass. permanganat.....	grs. viii
	Aquæ rosæ.....	ʒvi

M. Sig. Use as mouth-wash every three hours.

In the haemorrhages that occur in this disease give calcium lactate or calcium chloride as:

R.	Calcii chloridi.....	3iv
	Fluidextr. ergotæ.....	3ii
	Tinct. cinnamon.....	3iv
	Syr. aurantii cortic.....q. s. ad.	3iii
M. Sig.	One teaspoonful in water every three hours.	
	For the constipation give warm soapsuds enemas.	
	Other complications must be treated independently.	

SEA-SICKNESS.

Prophylaxis. All passengers who are susceptible to sea-sickness should take a calomel purge, followed by a saline, two days before sailing. All preparations for the voyage should be finished at least 24 hours before sailing in order to avoid exhaustion from overwork and loss of sleep. A moderate meal should be eaten before going on board. To avoid too much motion, a stateroom should be selected near the center of the vessel, away from the engines. As much time as possible should be spent on deck and the passenger should move about from time to time if possible. If however the sea becomes rough he should go to bed before getting sick.

For the first day or two on board, light easily digested food should be taken at short intervals, but over-eating should be avoided. Sponge or bathe daily with cold water, or with hot water preceded by cooling of the head and neck, and followed by a cold friction rub or shower. A little of something should be eaten before rising in the morning. Saline laxatives should be taken for the first few days on board.

Abdominal compression by means of a bandage and towel is often useful. If the abdomen is hollow, a soft folded blanket may be fitted into the depression. Sometimes the prone position is beneficial.

Diet in sea-sickness. A moderate amount of food should be taken at short intervals, in order to have something in the stomach all the time. Syrups, broths, gruels, junket, matzoon, kumyss, clam broth,

beef juice, and curry with a semi-solid diet when that is tolerated. Mulled wine, grog, eau de menthe, iced dry champagne, cider, brandy, ginger ale, seltzer, eau sucree with lemon juice or citric or tartaric acid, pieces of ice held in the mouth, and very hot coffee and tea are some of the drinks which may be given.

Drug treatment. Large doses of bromides (ammonium, potassium, sodium, strontium) may be given three or four days before starting and keeping this up while at sea until all danger of sea-sickness is over.

R. Potass. bromidi..... 3iv

Ft. caps. No. xxiv.

Sig. Two capsules every four hours, two days before sailing, and one capsule every four hours for the first two days at sea.

To regulate the bowels the following may be given:

R. Extr. taraxaci..... grs. xx
Extr. colocynth. co..... grs. xx
Extr. hyoscyam..... grs. iii
Extr. nuc. vomic..... grs. v
Hydrarg. mass..... grs. xv

M. ft. pil. No. xx.

Sig. One or two each night for three nights before sailing and three after.

To relieve the vomiting, the following agents are used: dilute chloroform, hydrocyanic acid, Worcester-shire sauce in teaspoonful doses, sodium carbonate in doses of 10 to 20 grains, creosote in drop doses every hour, cerium oxalate and cocaine:

R. Menthol..... grs. ii
Cocain. hydrochlor..... grs. iii
Syr. simplic..... 3i
Alcohol..... 3i

M. Sig. One teaspoonful every hour.

Recently strychnine ($\frac{1}{50}$ grain) and atropine $\frac{1}{100}$ grain either by the mouth or hypodermically have been highly recommended.

SEBACEOUS CYSTS.

When they occur on the head the hair should be shaved for a distance of at least two inches round the cyst. Sterilize the skin by scrubbing with soap and water followed by ether and alcohol.

An incision should be made through the skin with a fine sharp scalpel, just long enough to allow the cyst to be shelled out by the blunt end of the scalpel. If the cyst is removed without rupture drainage is unnecessary; the wound may be sewed with fine catgut sutures after thoroughly drying out the cavity. If the cyst is on the face, always make the line of incision parallel with wrinkles.

Local anesthesia with a 2% solution of cocaine is all that is necessary. First freeze the skin with ethyl chloride, and then inject the cocaine.

SEBORRHEA (See Dandruff).

SEMINAL EMISSIONS.

Local, general and mental hygiene are necessary, Strengthen tone of urethra and of prostatic muscles by counter-irritation with sounds, with cold-water, rectal douche, or mild electric current. Patient should take systematic outdoor exercise and should avoid prurience in books, pictures and conversation.

The bowels should be kept regular and no fluids should be drunk for two hours before bedtime. The bladder should be emptied after the first deep sleep. He should avoid a feather or soft bed and should not lie on his back. If the urine is too acid or alkaline, or if worms are present in the rectum these conditions should be treated.

The following prescription may be of service:

R.	Potass. brom.....	3iv
	Fluidextract. ergot.....	3iv
	Tinct. belladonn. fol.....	3ii
	Aquaæ camphor.....q. s. ad.	3viii
M.	Sig. One tablespoonful at bedtime.	

SERUM RASHES, PREVENTION OF.

The pruritus, joint pains and urticarial rashes which sometimes follow the administration of serums being due to a condition of reduced coagulability of the blood, may be relieved or prevented by the administration of calcium salts which increase the coagulation power:

- R. Calcii lactat..... grs. v
Calcii chlorid..... grs. v

M. et ft. caps. No. 1.

Sig. Give three hours before the administration of the antitoxin.

SHINGLES (See Herpes Zoster).

SHOCK.

In the treatment of shock the condition of the heart must be attended to. The patient should be placed in the horizontal position and he should be warmly covered. Artificial heat should be applied externally by hot blankets, hot water bottles and gentle friction of the surface in order to correct the falling bodily heat.

The action of the heart should be stimulated by the application of heat or mustard paste over the precordium, or by subcutaneous injections of strychnine, atropine, morphine or whisky:

- R. Tabellas strychninæ sulphat..... gr. $\frac{1}{50}$
No. xx

Sig. One tablet in ten minims of water hypodermically and repeat as required.

Or:

- R. Tabellas atropinæ sulphatis..... gr. $\frac{1}{100}$
No. xii.

Sig. A tablet dissolved in ten minims of water to be administered hypodermically, and repeated once or twice if required.

If the patient can take medicines by the mouth they should be given hot and concentrated.

- R. Spiritus ammoniæ..... 3*i*

Sig. One teaspoonful in water by the mouth and repeat as required.

Or:

R. Spiritus frumenti..... ʒ viii

Sig. One teaspoonful to be given hot as frequently as required.

In the case of surgical shock in children the following may be given:

R. Ammoniæ carbonatis..... grs. viii

Syrupi..... ʒ ii

Aquæ camphoræ..... q. s. ad. ʒ i

M. Sig. One teaspoonful every two hours.

Enemata of hot water, fluid extract of coffee or whisky may also be administered:

R. Ammon. valerianat..... grs. xxx

Tinct. digitalis..... ʒ ii

Brandy..... ʒ iv

M. Sig. One tablespoonful in two ounces of warm water by rectum every two hours.

Before a surgical operation the following may be given as a prophylactic against shock:

R. Glandulæ suprarenales siccæ..... grs. vii

Pulv. digitalis..... grs. ii

Sacchar..... grs. i

M. ft. chart. No. i.

Sig. Administer before operation.

In cases of haemorrhage the infusion of 40 to 50 ounces of normal salt solution is of benefit, or the following:

R. Calcii chloridi..... grs. iv

Potass. chlorid..... grs. iss

Sodii chlorid..... grs. cxl

Aquæ destillat. (steril.)..... ʒ xxxii

Sig. Inject warm under strict antiseptic precautions into vein from fountain syringe to which is attached a cannula, care being taken not to inject air bubbles.

In haemorrhage a temporary ligature or tight bandage may be applied to the thighs to prevent the blood

entering the lower extremities, or an Esmarch's bandage may be applied to the limbs or a tourniquet to the femoral artery.

SILVER NITRATE (LUNAR CAUSTIC), POISONING BY.

Give two tablespoonfuls of common salt in a glassful of water in order to form insoluble silver chloride. Then give an emetic to remove the precipitated silver chloride. Follow this up with large draughts of white of egg in water.

SKIN DISEASES, ELECTRIC TREATMENT OF.

The following skin affections are suitable for treatment by discharges of the high-frequency apparatus: pruritus, eczema, psoriasis, lupus vulgaris, lupus erythematosus, alopecia areata, impetigo and acne.

The treatment consists in the use of the effluvium of the resonator given without sparking, from a metallic brush electrode, or of the finer effluvium of the "glass condenser" electrodes, which may either be exhausted to a conducting vacuum or filled with water or salt solutions.

When the skin affection is chronic, indolent and dry, a few fine sparks should be applied to the surface by means of a wire brush as well. Two or three applications weekly of a duration of ten minutes are sufficient.

The following skin affections are suitable for treatment by the X-rays: eczema, psoriasis, herpes zoster, sycosis, favus, acne vulgaris, acne rosacea, nævus flammeus, cutaneous blastomycosis, mycosis fungoides, tinea tonsurans, dermatitis herpetiformis and pruritus. The X-ray may also, if used with care, be employed in the removal of superfluous hair.

For superficial affections like those of the skin a set of tubes of low resistance should be employed. These tubes emit a large proportion of rays of low penetrating power that are easily absorbed near the surface. The exposures should be of five min-

utes' duration for the first few sittings and then increased if necessary. They should be given two or three times a week and the tube should be at a distance of six to eight inches. If a large area is affected the distance of the tube should be somewhat increased and the exposure lengthened in proportion.

SLEEPLESSNESS (See Insomnia).

SLEEPING SICKNESS. (TRYPANOSOMIASIS.)

Purgation with castor oil counteracts the persistent constipation and thus gives great relief. If malaria complicates the disease, iron, arsenic, and quinine are of benefit. Arsenic in increasing doses, nutritious diet, and careful nursing may delay considerably the almost invariably fatal termination.

Besides arsenic the only other drugs of benefit in this disease are trypanred and atoxyl. The former is an aniline body and received its name from Ehrlich. The latter is a meta-aniline arsenic compound. The two drugs may be given separately or together.

Intravenous injection should be made twice a week with 5 c. c. of a 5% solution of atoxyl. Increase the quantity gradually till headache and nausea appear. It should be given for a year or over. Trypanred is given in pill form in the dose of five grains.

SMALL-POX (VARIOLA), PROPHYLAXIS OF.

Isolate the patient completely, preferably in a special hospital for infectious diseases. Remove all superfluous furniture, carpets, curtains, etc., from the sick-room and ventilate it thoroughly. Suspend before the door a sheet kept constantly wet with solution of phenol (1 to 20). Disinfect all objects that have been in contact with the patient. Vaccinate all those who have been, or are likely to be, exposed to the contagion. The physician and attendants while in the sick room should wear a gown

over their other clothing, and this should be removed when leaving the patient. The patient should be supplied with separate utensils and dishes; and all dressings and crusts from the pustules should be burned. Do not allow any bed-linen and clothing to be sent to the laundry before being soaked for at least two hours in bichloride solution (1 to 1,000)

If the patient recovers he should be thoroughly washed and shampooed with soap and warm water, and then sponged with a bichloride of mercury solution (1 to 3,000). He should be quarantined until the skin is clean and smooth, and there are no traces of the crust left.

If death takes place, sponge the body with strong mercury bichloride solution, plug the mouth, nostrils, and anus, with cotton pledgets soaked in the same solution. Next wrap the body in a sheet saturated with strong bichloride solution, place it in an air-tight coffin and bury it as soon as possible, or better still, cremate it, if practicable.

SMALL-POX. (VARIOLA.)

Treatment. Isolate patient in a well-ventilated room kept at a constant temperature of 65° F. The patient should have absolute rest and the bed-clothes should be light. The diet should be sustaining and easily assimilable and cool drinks should be freely given throughout the disease.

At the onset the bowels should be kept open with fractional doses of calomel frequently repeated and followed by a saline.

The pain in the back and head may be relieved by acetanilid or antipyrin in combination with caffeine to prevent heart weakness:

R. Antipyrinæ..... 3*i*

Caffeinæ citratæ..... grs. vi

M. ft. chart. No. xii.

Sig. One powder every three hours if required.

Or the following may be given for the same purpose:

R. Pulv. ipecac. et opii..... 5*i*

Ft. chart. No. vi.

Sig. One powder as required to ease pain in back and head.

The ice-cap to the head and the application of hot-water bags to the lumbar region are also useful. The following liniment is also of benefit:

R. Camphoræ.

Chloralis.

Mentholis..... āā 3*i*

M. Sig. Rub thoroughly over the back.

The vomiting may be relieved by swallowing small pieces of cracked ice, or by frequent sips of iced champagne as well as by dilute hydrocyanic acid (2 min.), subnitrate of bismuth (10 grains), or cocaine ($\frac{1}{8}$ grain).

Cerebral symptoms are usually relieved by cool sponging, tepid tub baths, or the ice helmet, but when these fail opium with bromides, or chloral with bromides may be given per rectum or by the mouth:

R. Potassii bromidi..... 3*v*

Syrup. aurantii flor..... 3*vi*

Aquæ camphoræ..... q. s. ad. 3*viii*

M. Sig. One tablespoonful every 3 hours if required.

When delirious the patient should be carefully watched as there is danger that he may injure himself or commit suicide.

If there is cardiac weakness stimulants such as caffeine, alcohol, or strychnine may be given hypodermically. Alcoholic stimulants are often of great benefit, especially in confluent cases.

The eruptive stage. To prevent pitting the room should be darkened by covering the window panes with red flannel. Daylight, and especially its chemical rays, seems to have an injurious effect in bringing about the suppuration of the vesicles. The skin of the patient should be covered with a thin gauze compress which is kept moist with a weak solution of car-

bolic acid (1 to 200) or of corrosive sublimate (1 to 5,000). Besides preventing pitting these wet compresses have a soothing effect. A suitable mask should be made for the face. When the lesions are deep-seated, pitting can hardly be avoided.

The eruptions in the mouth, nose and throat are treated by the external application of cold and frequent cleansing of the nasopharynx with antiseptic sprays, douches and mouth-washes. Dobell's solution or dilute liquor antisepticus, potassium chlorate or iron perchloride are useful:

- R. Potassii chloratis..... ʒ vi
Tinct. myrrhæ..... ʒ i
Aquæ camphoræ..... q. s. ad. ʒ xvi

M. Sig. Shake well, and use as a mouth-wash every hour or two.

Or:

- R. Tinct. benzoini co..... ʒ i
Liq. antiseptici..... q. s. ad. ʒ viii

M. Sig. One teaspoonful to half a cup of water, and use as a mouth-wash every hour or two.

If ulcers appear they should be touched with a 20% argyrol' solution.

The eyes should be kept clean by frequent applications of a weak warm boric acid solution (15 grains to the ounce) or:

- R. Acidi borici..... grs. xl
Aquæ camphoræ..... ʒ iv
Aquæ destillat..... q. s. ad. ʒ viii

Sig. Bathe eyes freely every few hours.

A few drops of a 10% solution of protargol may also be instilled. If the eyelids tend to become gummed together during sleep, give:

- R. Acidi borici..... ʒ i
Camphoræ..... grs. v
Petrolati mollis..... ʒ i

Sig. Rub small quantity along margin of eyelids. After the crusts have formed, they should not be

removed before they are completely loosened. Children should be prevented from scratching by bandaging their hands with gauze. The following ointment may be used to prevent pitting, soften scales, and relieve itching:

R. Phenolis.....	5ss
Ungt. aquæ rosæ.....	3viii
M. Sig. Apply freely every two or three hours	
Or:	
R. Ung. resorcin co. N. F.....	3iii
Sig. Apply every three hours.	

SMOKER'S TONGUE.

Clean the mouth, take care of the teeth and stop smoking. Touch the patches with lunar caustic once every week or so. Antiseptic and astringent mouth washes may be given, e. g.:

R. Liq. antiseptic. U. S. P.....	3vi
Sig. Use one teaspoonful in a wineglassful of water three times a day.	

To take off the discoloration from the teeth and whiten them, use peroxide of hydrogen on tooth-brush every morning.

SNAKE-BITE.

Prevent absorption of the poison by ligaturing the part above the bite, sucking the wound and rubbing in powdered potassium permanganate. Dissect carefully and deeply all parts of the wound likely to contain poison. Burn with a red-hot iron.

Next counteract or lessen the effect of the poison which has been absorbed. Administer sufficient whisky to overcome the depressing effect of the poison. Ammonia and strychnine are also of value. Give strychnine sulphate hypodermically in doses of $\frac{1}{50}$ grain. Keep the patient quiet and warm. The intravenous or hypodermic injection of Calmette's anti-venom serum has proved to be effective in some cases of snake-bite. Each snake-venom requires its own specific anti-serum.

We have not so far a polyvalent serum, that is, one that will counteract the poison of all snakes.

SPA TREATMENT OF DISEASE.

Only the springs of North America are enumerated here.

1st. Simple thermal waters whose temperature varies from 80° F. to 150° F. or more. These springs are poor in solid and gaseous contents. To this class belong the Lebanon Springs of Columbia County, New York; the Hot Springs, Warm Springs and Healing Springs of Bath County, Virginia; the Hot Springs in North Carolina; the Warm Springs in Georgia; the Hot Springs in Arkansas; the Idaho Hot Springs in Colorado; the Calistoga Hot Springs; the Geysers in California and the Las Vegas Hot Springs in New Mexico.

These springs are useful in gastralgia, neuralgia, gout, rheumatism, hysteria and in irritable conditions of the mucous membranes of the digestive and respiratory organs.

2d. Muriated or chloride waters containing common salt, iron, carbonates of sodium, lithium, magnesium and calcium, sulphates of sodium, magnesium and calcium. To this class belong St. Catherine's Wells, Ontario; Ballston Spa, New York; Saratoga Springs, New York; Spring Lake Well, Michigan; Fruit Port Wells, Michigan. The Mount Clemens Mineral Spring, Michigan, is a strong brine containing sulphuretted hydrogen.

These springs are useful in sluggish action of the bowels and stagnation in the branches of the portal vein, in dyspepsia, congestion of the pelvic organs, and haemorrhoidal vessels and in enlargement of the liver. Also in catarrh of the stomach, intestines and respiratory organs, in chronic rheumatism, gout, sciatica and chronic enlargement of the womb.

3d. Alkaline waters containing bicarbonate of sodium and other salts. To this class belong the Geyser

and Vichy Springs of Saratoga; the Sheldon Springs of Vermont; the Bladon Springs of Alabama; the California Seltzer Springs; the St. Louis Spring, Michigan, and the Royal Gorge Hot Springs near Canyon City, Colorado.

These springs are useful in dyspepsia with acidity or catarrh of the stomach and intestines. Muriated alkaline waters like the Bladon and Sheldon Spring are useful in chronic catarrh of the respiratory organs. Sulphated alkaline waters like those of the Royal Gorge Hot Springs are useful in atonic constipation, passive congestion of the liver, cholelithiasis, tendency to uric acid gravel, some forms of rheumatism and gout, and in the glycosuria of corpulent persons.

4th. Sulphated or bitter waters containing the sulphates and chlorides of magnesium and sodium. To this class belong the so-called American Carlsbad Springs in Washington County, Illinois, and the Crab Orchard Springs in Kentucky.

These springs are useful in habitual constipation, passive congestion of the liver, chronic malaria and syphilis. They also help to eliminate metallic poisons, as lead and mercury.

5th. Iron waters containing the bicarbonate, sulphate or chloride of iron. The bicarbonate is by far the most useful, because it is more agreeable to the stomach. To this class belong the White Sulphur Springs, Iowa; the "Round" Spring at Aurora Springs, Missouri; the Matchless Mineral Wells, Alabama; Addison Springs, Maine; Austin Springs, Tennessee; Adirondack Mineral Spring and Oak Orchard Acid Springs, New York.

These springs are useful in all forms of anæmia, after severe hæmorrhage, in amenorrhœa, and in the various cachexias. They are contraindicated in plethora, vertigo and congestive headaches.

6th. Arsenic waters containing an appreciable quantity of arsenic along with iron or saline sub-

stances. To this class belong some of the Yellowstone National Park Springs.

These springs are useful in chronic skin affections with anaemia, in lymphatic and glandular diseases, and in malarial cachexia.

7th. Sulphur waters containing either sulphide of sodium, calcium, potassium, or magnesium, or sulphuretted hydrogen. Some are thermal and others are cold. To this class belong the Cold Sulphur Springs of Virginia; Lane's Mineral Springs of California; Beck's Hot Sulphur Springs in Utah; the Columbia Springs in New York, and the Louisville Artesian Well in Kentucky.

These springs are useful in chronic rheumatism, gout, syphilis, chronic skin disease, hemorrhoids, and in chronic bronchial, laryngeal and pharyngeal catarrhs. They have also an ancient reputation in lead and mercury poisoning.

8th. Earthy or calcareous waters containing carbonate and sulphate of calcium and carbonate of magnesium. To this class belong Butterworth's Springs, Eaton Rapids Well and Leslie Well in Michigan; the Gettysburg Springs in Pennsylvania; the Alleghany Springs in Virginia, and the Old Sweet Springs in West Virginia.

These springs are useful in dyspepsia with irritability of the mucous membrane, acidity and diarrhoea. They are also useful in gall stones, gout, and in washing out small stones in the bladder and kidney.

SPA TREATMENT OF DISEASE, FOREIGN.

If the patient can afford or desires a trip to Europe or elsewhere overseas, one of the following may be chosen for him:

1st. Simple thermal waters. Buxton, England; Bath and Matlock, England; Mont Dore, Bagnères-de-Bigorre, Plombières, Dax and Luxeuil, France; Landeck, Wildbad, Liebenzell, Warmbrunn, Schlan-

genbad, Germany; Loeche-les-Bains, Pfaeffers, Ragatz, Switzerland; Bormio, Acqui, Lucca, Monsummano, Battaglia, Italy; Panticosa, Spain (Pyrenees); Johannisbad, Teplitz, Bohemia; Biskra, Algeria; Caledon, Cape Colony; Rotorua, New Zealand.

2d. Muriated or chloride waters. Droitwich, Nantwich, Middlewich, Ashby-de-la-Zouche, Woodhall, Harrogate, Llandrindod, Bridge of Allan, Melksham, Leamington, Cheltenham, Great Britain; Bourbone, Lamotte, Uriage, St. Gervais, Chatel-Guyon, Salins, Brides-les-Bains, France; Kissingen, Homberg, Soden, Nauheim, Oeynhausen, Kreuznach, Wiesbaden, Reichenhall, Ischl, Hall, Niederbronn, Krankenheil, Salzungen, Cannstatt, Cronthal, Aachen, Germany and Austro-Hungary; Bex, Rheinfelden, Switzerland; Monte Cattini, Castro Caro, Salsomaggiore, Italy; Caldas-de-Montbuy, Caldas-de-Malavella, Cestona-Guesalga, Spain; Caldas-de-Rainha, Portugal.

3d. Alkaline waters. (a) Simple alkaline: Vichy, Vals, Le Boulou, France; Neuenahr, Obersalzbrunn, Fachingen, Birresborn, Germany; Bilin, Bohemia. (b) Muriated alkaline: Royat, La Bourboule, Saint-Nectaire, Chatel-Guyon, France; Ems, Toennisse, Germany; Luhatschowitz, Bohemia; Szczawnica, Galicia. (c) Sulphated alkaline: Bertrich, Elster, Germany; Tarasp, Switzerland; Carlsbad, Marienbad, Franzensbad, Bohemia; Fuered, Hungary.

4th. Sulphated or bitter waters. Melksham, Scarborough, Leamington, Cheltenham, England; Montmirail, France; Friedrichshall, Mergentheim, Germany; Birmensdorf, Switzerland; Pullna, Sedlitz, Saidschutz, Bohemia; Rubinat, Condal, Carabana; Villacabra, Spain.

5th. Iron or chalybeate waters. (a) Bicarbonate of iron group: Tunbridge Wells, England; Rennes-les-Bains, Sylvanes, Lamalou, France; Brueckenau, Griesbach, Liebenstein, Godesberg, Bocklet, Innsbruck,

Driburg, Schwalbach, Germany; Spa, Belgium; Ceresole, Reale, Santa Catarina, Recoaro, Italy; Koenigswarth, Bohemia; (b) Sulphate of iron group: Flitwick Well, Bedfordshire, England; Alexisbad, Germany; Civillina, Italy; Ratzes, Mitterbad, Levico, Roncegno, Austrian Tyrol.

6th. Arsenic waters. La Bourboule, Mont Dore, France; Levico, Roncegno, Austrian Tyrol; Ceresole Reale, Italy.

7th. Sulphur waters. (a) Hot. Eaux-Bonnes, Eaux-Chaudes, Cauterets, etc., in the French Pyrenees; Aix-les-Bains and Uriage, France; Aachen or Aix-la-Chapelle and Burtscheid, Germany; Acqui, Battaglia and Abano, Italy; Panticosa and Trillo, Spain; Caldas-de-Rainha, Portugal and Helouan in the desert near Cairo. (b) Cold. Harrogate, England; Llandrindod Wells, Builth, Wales; Strathpeffer, Moffat, Scotland; Lisdoonvarna, Ireland; Challes, Enghien, Bagneres-de-Bigorre, France; Eilsen, Nenndorf, Weilbach, Meinberg, Germany; Alveneu, Gurnigel, Stachelberg and Heustrich, Switzerland.

SPINAL CORD, TUMORS OF.

In every case antisyphilitic remedies should be pushed to their limit whether there is a history of syphilis or not, for at least four weeks.

The location of tumors of the cord in most cases can now be readily ascertained. The only treatment is operative surgery. From 50 to 70 per cent of the tumors of the cord can be removed without difficulty, and with a large percentage of complete cures.

SPLENIC ANÆMIA. (See Anæmia, Splenic).

SPLENIC FEVER (See Anthrax).

SPLENOmegaly, TROPICAL (See Kala Azar).

SPRAIN.

If sprain is mild, the part should be immersed in hot water or otherwise subjected to moist heat, and

then it should be massaged for a considerable time. Next strips of adhesive plaster should be applied so as to give firm support to the joint.

If there is considerable swelling and extravasation of blood, apply the following:

R.	Liq. plumb. subacetat.....	ʒi
	Tinet. opii.....	ʒi
	Aquæ.....	Oi

M. Sig. Apply hot to joint.

Sprains of the ankle are best treated by firmly fitting strips of adhesive plaster; this relieves the pain almost immediately. In four or five days remove the plaster and apply stimulating liniments, followed by a tight bandage until complete recovery has taken place:

R.	Lin. aconit. et chloroformi, N. F.....	ʒiv
----	--	-----

Sig. Apply twice a day.

Or:

R.	Menthol.....	ʒss
	Chloroform.....	ʒiii
	Spts. camphor.....	ʒiv
	Spts. vini rect.....	ʒvi
	Lin. saponis.....q. s. ad.	ʒvi

M. Sig. Apply twice a day.

SPRUE. (PSILOSIS, TROPICAL DIARRHŒA, MANILA SORE MOUTH.)

Treatment chiefly dietetic and hygienic. Clothe warmly in flannel. Pad of cotton over abdomen. Hot wet packs, changing to tepid and cold for two hours twice daily. Commence treatment with one drachm of castor oil. Diet wholly of milk, three to four ounces slowly sipped, not drunk, every hour, increasing the interval as the patient improves. Strawberries added to the milk are of great benefit.

Alleviate the raw state of the mouth by painting tongue before eating with a 2% solution of cocaine solution, and rinsing mouth out after eating with a weak solution of borax.

Give sodium bicarb. 15 minutes before meals. Castor oil, one to two teaspoonfuls every third day. Remove if necessary to high altitude or to a temperate zone.

Or the diet may consist wholly of meat; fresh juice of scraped beef, beef jelly every half hour or hour. When improvement takes place give pounded beef, chicken or fish, 5 oz. thrice daily with baked bread. Occasionally a combination of milk and meat diet is of service.

SQUINTING. (STRABISMUS.)

In convergent squint with hyperopia, atropin will temporarily remove the condition by paralyzing the ciliary muscles and so stopping the efforts at accommodation. In these cases convex lenses correcting the hyperopia should be worn constantly and at the earliest date possible. In all young subjects these glasses should have a fair trial and children of two or three years will receive most benefit from them, since in them the vision is not usually permanently damaged.

In many cases the use of convex glasses fails owing to the changes which have already taken place in the relations between the external and internal recti muscles. If they fail, tenotomy of the internal rectus in one or both eyes must be resorted to. This should not be done sooner than the eighth year, by which time the patient will be able to wear glasses.

Convergent squint, the result of myopia, is generally remedied by suitable glasses, but when these fail, tenotomy should be performed.

In myopia, concave lenses correcting it may be used to prevent divergent squint which is a more troublesome affection to remedy than is convergent squint. The very mild forms may be sometimes removed by suitable concave glasses to correct the myopia to which it is usually due.

STAMMERING AND STUTTERING.

Look for and treat any abnormalities or pathological conditions in the mouth, throat or air passages. Irregularities of the teeth near the tip of the tongue should be corrected.

Give the patient vocal exercises and insist on great slowness and deliberation. He should practice again and again the sounds which give him most difficulty, and should not be allowed to talk when excited, nervous or angry.

In bad cases, begin the vocal exercises with singing or intoning, followed by repeated exercises in loud, slow reading.

The stuttering child should be kept as much as possible from association with other stutterers. Even normal children may learn the habit from associating with stuttering children.

No notice should be taken of the disorder in sensitive children since sympathy may make them nervous as much as blame does, and so foster the habit.

Breathing exercises should be given by causing the patient to take a long breath, hold it for a moment, and then let it out slowly with occasional stops, but without sound. He should take a deep breath at frequent intervals, and should never speak with nearly empty lungs.

Some adult patients if they have patience and perseverance enough, may educate themselves out of the habit but proper teaching may save them time, and in some cases, disappointment.

STARVATION, TREATMENT OF.

Give some stimulant and apply external heat. Give nourishment in very small quantities, e. g., scraped raw beef flavored, in teaspoonful doses every half hour. Do not satisfy at first the ravenous appetite of the patient. Milk may be given next alternately with the beef juice, then gradually more solid diet.

STERILITY IN WOMEN.

In the case of husband and wife, the male potency being established, look for a possible cause in the woman.

Attend to her general health. Recommend sexual moderation or even abstinence for several months. Intra-uterine galvanism is beneficial in the case of hyperinvolution or when the uterus is badly developed. In infantile uterus, curettage, intra-uterine pessaries, and hot douches are often beneficial. If acrid discharges from the uterus kill the spermatozoa alkaline injections should be given before congress, and Vichy water should be taken internally. In chronic metritis, amenorrhea, or coldness, aurum chloride in $\frac{1}{50}$ grain doses is beneficial. When there is obstruction with dysmenorrhea, or endometritis from anteflexion, dilation or divulsion of the cervix should be tried, followed by curettage. If there is blocking of the cervical canal with discharge from the cervical glands, cleanse the canal with a probe wrapped in cotton.

In brief, sterility in the female often depends upon remedial causes, and sometimes more than one cause may be present at the same time. For details of treatment of these causes see under the headings Leucorrhea, Metritis, Uterine Displacements, Gonorrhœa, Dysmenorrhea, Vaginismus, Syphilis, Salpingitis, Obesity, etc.

STERILIZATION OF HANDS BEFORE OPERATION.

Scrub hands and arms thoroughly for five minutes in hot water, taking special care to clean the nails. Then wash the hands for two minutes in a carbolic (1 to 40) solution, using a nail-brush which is kept in a 1 to 20 solution. Next soak the hands for one minute in a 1 to 1,000 solution of biniodide of mercury in spirit diluted four times with sterilized water. Then rinse for one minute in sterilized water.

STOKES-ADAMS DISEASE.

Treatment is unsatisfactory; a sufficient number of cases are not on record to formulate any definite line of treatment. Morphine, digitalis, nitroglycerin, camphor and ammonia have individually helped some cases. The attack may sometimes be mitigated by the patient assuming a position which will favor the cerebral circulation. He should support himself on his hands and knees while the head hangs low. To calm the nerves and promote sleep hypodermic injection of $\frac{1}{4}$ grain of morphine is of great benefit.

STONE IN KIDNEY (See Renal Calculus).

STRANGULATION OF BOWEL (See Intussusception).

STRYCHNINE POISONING.

In severe cases the first step in the treatment is the free administration of chloral followed by inhalations of chloroform sufficient and sufficiently prolonged to control the convulsions until the poison is eliminated.

Unabsorbed poison should be removed from the stomach by washing it out with a strong infusion of tea, or a solution of some form of tannin, or by water holding powdered charcoal in suspension. An emetic may be given, of which apomorphine hydrochloride is the best in this case in hypodermic injections of $\frac{1}{10}$ grain.

Two drachms of potassium bromide in a glassful of water should be given and repeated every quarter of an hour if necessary.

Artificial respiration should also be tried.

STYE (See Hordeolum).

SUB-ACIDITY OF GASTRIC JUICE (See Achylia Gastrica).

SULPHONAL, TRIONAL AND VERONAL POISONING.

Empty the stomach by means of a stomach tube or with an emetic. Give stimulants and apply

warmth to the extremities. Strychnine sulphate ($\frac{1}{30}$ to $\frac{1}{10}$ grain) hypodermically, or digitalin ($\frac{1}{100}$ grain) hypodermically are of service. Artificial respiration should be given and the recumbent position is to be maintained.

SUMMER DIARRHŒA (See Gastro-Enteritis, Acute).

SUNSTROKE. (HEAT-STROKE, INSOLATION, THERMIC FEVER.)

In mild cases take patient into a cool place or at least into shade. Loosen clothing, bathe head with cold water; apply ice if possible. Give stimulants such as aromatic spirits of ammonia, Hoffman's anodyne, liquor ammoniae acetatis or whisky. Give iced tea or coffee. Relieve headache with:

R.	Sodii bromidi.....	3ii
	Phenacetini.....	3iss
	Caffein. citr.....	grs. xii
M. et ft. chart.	No. xii.	

Sig. One every three hours if necessary.

In severer forms, give hypodermic injection of $\frac{1}{10}$ gr. of strychnine. If high temperature, place patient in bath of iced water and rub with ice. Also enemas of ice water in which salt has been dissolved (one teaspoonful to one pint). In collapse give hot bath and apply artificial respiration, and:

R.	Spt. nitroglycerin 1%	m. xxv
	Digitalin.....	gr. $\frac{1}{2}$
	Strychnin. sulph.....	gr. $\frac{1}{2}$
	Spt. vin. Gall.....	q. s. ad. 3iii

M. Sig. One teaspoonful every three hours hypodermically or by mouth.

SUPPRESSION OF MILK. (AGALACTIA.)

The patient should have rich food, Dublin stout, beef juice, the various malt extracts with or without cod liver oil and tonics such as strychnine sulphate. Massage of the breasts is also of benefit. In stubborn cases pilocarpine nitrate hypodermically may be tried, or:

- R. Pilocarpin. hydrochlor..... gr. iss
 Strychnin. sulph..... gr. $\frac{1}{2}$
 Tinct. vanill..... 3i
 Elix. simpl..... q. s. ad. 3ii
 M. Sig. One teaspoonful in water every four hours.
 Or:

- R. Malt. cum ferr. quin. et strych..... 3xii
 Sig. One tablespoonful four times a day.

SUPPRESSION OF URINE. (ANURIA.)

Treatment in children. Hot applications over the kidneys.

Give internally the following for a child three months old:

- R. Spts. æth. nitros..... m. xvi
 Potass. citrat..... grs. xvi
 Aquæ..... q. s. ad. 3ii

M. Sig. One teaspoonful every half hour until the urine appears, usually in six or eight hours.

Treatment in adults. Depends upon the cause. If mechanical obstruction then prompt surgery is imperative. In non-obstructive cases, free purgation, hot fomentations or dry cups to the kidneys and sweating by the use of $\frac{1}{2}$ gr. of pilocarpin are indicated. It is best for the patient to live on a milk diet. Withhold sodium chloride entirely from the patient's food if there is headache, itching, convulsions or delirium.

Rectal irrigation with very hot water is beneficial
 Internally give the following:

- R. Diuretin... 3iss
 Potass. acetat 3vi
 Infus. digital. fol. q. s. ad. 3vi
 M. Sig. One tablespoonful every three hours.

SYCOSIS.

In obstinate cases the patient's general condition should be improved by hygienic and tonic treatment. Bitter tonics may be given to tone up impaired digestion, and cod liver oil to overcome the

debility which may be at the root of the disease.

Laxatives and alkaline diuretics may help to lessen the acute hyperæmia which is often present.

In acute cases a soothing application such as a saturated solution of boric acid should be applied to the affected area and then an application of oxide of zinc ointment.

In chronic cases the crusts should be softened with oil and removed. The hair should be closely cut or preferably, shaved. The pustules should be punctured and loose hairs epilated daily, in order to preserve the follicles. One of the following applications may be prescribed:

R.	Resorcinolis.....	5i
	Glycerini.....	5ii
	Ungt. aquæ rosæ.....q. s. ad.	5ii

M. Sig. Apply several times a day.

Or:

R.	Sulph. precipitat.....	grs. xxx
	Ichthyol.....	5i
	Petrolat.....	5iv
	Lanolin.....	5iv
	Ol. rosæ.....	m. ii

M. Sig. Apply at night and several times during the day if possible.

Or:

R.	Ichthyol.....	m. xl
	Chrysarobin.....	grs. xl
	Acid. salicylic.....	grs. xv
	Vaselin.....	5vi
	Lanolin.....	5vi

M. Sig. Rub in well, and cover part with thin layer of gutta-percha tissue.

SYNCOPE (See Fainting).

SYNOVITIS.

In acute synovitis absolute rest should be secured for the joint by means of splints, sand-bags, etc. A sense of relief is gotten from the application of

cold by means of a poultice of ice and sawdust, by the ice-bag, or by the rubber coil wound round the limb. In other cases hot water bags or poultices or fomentations of laudanum and hot water may give relief. Or the following may be prescribed:

R.	Liq. plumbi subacetat.....	ʒ ii
	Tinct. opii.....	ʒ ii
	Aquaæ bullientis.....q. s. ad.	ʒ xxxii
M. Sig.	Apply upon soft cloths saturated with solution, and place joint at rest.	

To promote absorption produce free saline purgation by sulphate of magnesia, followed by a diaphoretic containing $\frac{1}{8}$ grain of tartar emetic at short intervals, or give:

R.	Magnesii sulphatis.....	ʒ ii
	Antimonii et potass. tart.....	grs. ii
	Tinct. aconiti.....	m. v
	Syr. aurantii.....	ʒ i
	Aquaæ menth. pip.....q. s. ad.	ʒ xvi

M. Sig. Two tablespoonfuls to be taken every second hour.

Local applications of tincture of iodine or compound ointment of potassium iodide may also be used to promote absorption, or the following may be given internally:

R.	Potass. iodidi.....	ʒ iv
	Sodii salicylat.....	ʒ iv
	Aquaæ menth. virid.....q. s. ad.	ʒ iii

M. Sig. One teaspoonful in water after meals.

The following local applications are useful in promoting absorption of fluid from the joint:

R.	Ungt. potass. iodid.....	ʒ iv
	Ichthyoli.....	ʒ iv
	Adipis lanæ hydrosi.....	ʒ i

M. Sig. Apply freely on cloth.

Or:

R.	Guiacolis.....	ʒ ii
	Adipis lanæ hydrosi.....	ʒ i

M. Sig. Apply twice daily over affected area and cover with a rubber protective.

In severe cases of acute synovitis the joint should be put to rest in a good position, so that if ankylosis should take place the limb may not be entirely useless. The elbow should be put up at a right angle, the knee very slightly flexed, the hip very slightly flexed on the trunk and neither adducted nor abducted, the ankle at a right angle, the wrist in the line of the arm, and the shoulder with the arm at the side.

As soon as the heat and extreme tenderness of the early stage have disappeared, massage of the joint with gentle flexion and extension of the joint should be begun.

Traumatic purulent synovitis, where a penetrating wound of the joint exists, requires the enlargement of the penetrating wound and a thorough flushing out of the joint with a stream of warm antiseptic solution, and the insertion of a drainage tube under a liberal supply of antiseptic dressing.

When a distinct rheumatic element is present, large doses of salicylate of sodium should be given, and the joint treated with rest, compression and ice-bags.

In gouty synovitis, colchicum may be prescribed, and a padding of absorbent wool placed round the joint which should then be enveloped in oiled silk.

SYPHILIS.

There are only two drugs which have curative properties in this disease, they are mercury and iodide of potassium.

There is still a good deal of controversy as to when treatment should begin, as to the period of time it should be continued, as to whether the two drugs should be given together or apart, and as to the best method of administration.

The treatment may be divided into: 1st—The treatment of the primary sore. 2d—The treatment

of the secondary stage. 3d—The treatment of the tertiary stage.

Treatment of the primary sore. Extirpation is fruitless. The sore should be kept clean by an antiseptic solution, as:

R. Hydrarg. bichlor. (1 to 4,000)..... 3 vi

Sig. Bathe sore at least four times a day.

After carefully washing and drying the sore apply the following powder:

R. Acidi borici.

Hydrarg. chlor. mit.

Bismuth subnitrat.....aa 3 ii

M. Sig. Apply three or four times a day.

Internal treatment should not be started if the diagnosis is uncertain; we should rather wait for the appearance of the secondary symptoms, unless we can demonstrate the spirochæta pallida in scrapings from the primary sore.

Treatment of the secondary stage.

Mercury is the specific in this stage. It may be given (a) by the mouth, (b) by inunction, (c) by hypodermic injection, (d) by baths, (e) by fumigation.

When given by the mouth it should be as follows:

R. Pil. hydrarg. proto-iodid..... gr. 1/4
No. c.

Sig. Begin with one four times a day and gradually increase.

The dosage should be increased until the physiologic limit is reached or until about 4 grains a day are taken.

Calomel may be given in $\frac{1}{4}$ to $\frac{1}{2}$ grain doses three times a day. This is well borne by children.

Any of the following preparations may be obtained in pill form. The minimum and maximum doses are added:

Hydrarg. chlor. corros..... $\frac{1}{2}$ to $\frac{1}{3}$ grain

Hydrarg. iodid. rubr..... $\frac{1}{10}$ to $\frac{1}{4}$ grain

Hydrarg. iodid. vir..... $\frac{3}{4}$ to 3 grains

Hydrarg. oxidi..... $\frac{1}{2}$ to $\frac{1}{4}$ grain

During the first year push the mercurials. Give the patient two or three weeks' rest after the first six months' continuous treatment. During the second year push the mixed treatment.

Inunction. When mercury is given by inunction it should be rubbed into those parts where the skin is soft, thin, and free from hair. It should be applied in a systematic manner as:

- 1st night, calves of legs;
- 2d night, both thighs, inner surface;
- 3d night, abdomen;
- 4th night, the back;
- 5th night, the chest;
- 6th night, forearms and arms.

Blue ointment should be used (*ungt. hydrarg.*) and 30, 40, 50, or 60 grains may be used at one rubbing at bedtime. The ointment should be prescribed thus:

R. *Ungt. hydrarg.* 5iv

Div. in dos. æqual. No. xxx Dent. ad chartam cerat.

Sig. The contents of one paper to be rubbed in at bedtime.

Each treatment should take up 20 to 30 minutes' time. A hot bath should be taken daily. If an attendant gives the inunction he should protect himself with rubber gloves. Not more than 30 inunctions should be given. Should ulceration, diarrhoea, or stomatitis occur the inunctions must be stopped.

The only objections to inunctions are the publicity and the dirtiness. The advantages are that they do not so readily cause digestive disturbances, they produce the promptest results, and are well borne by children.

Hypodermic injections. These are not popular in general practice, but are very convenient in hospital work. Their action is prompt but they cause considerable pain. They should be given once daily for about 30 days:

R. <i>Hydrarg. bichlor.</i>	grs. xv
<i>Sodi chlorid.</i>	grs. xxx
<i>Aquaæ destillat.</i>	3iii

M. Sig. Inject 15 drops daily. ($\frac{1}{6}$ grain of bichloride of mercury.)

Injections are best made in the buttocks.

The intravenous injections of mercury are dangerous and should be condemned.

Baths. These are of benefit in helping to control the skin lesions of syphilis. With proper internal treatment most skin lesions require little treatment. To a daily bath, two to three drachms of mercuric chloride may be added.

If lesions are on the face give the following ointment:

R. Hydrarg. chlor. mit..... grs. xxx
Lanolin..... ʒi

M. Sig. Apply once daily.

Fumigations. These are seldom used at the present day. They are made by placing the naked patient in a chair and covering him from the neck down, as well as the chair, with a blanket. An alcohol lamp is placed under the chair, a small dish containing 15 to 30 grains of calomel is placed over the lamp. The calomel dish should rest in another dish containing water. The patient is seated, the lamp is lighted, and the fumes of calomel begin to rise, together with watery vapor, and are deposited on the patient's skin where they are readily absorbed. The process of fumigation should last 15 minutes. It may be done once or twice a week. After the fumigation the patient is wrapped in the blanket and placed in bed.

Mercury should not be pushed beyond the appearance of the following symptoms: swollen, spongy, bleeding, red gums, increased flow of saliva, metallic taste, and sore teeth. If these conditions arise they must be treated with mouth-washes, as:

R. Sat. sol. potass. chlorat..... ʒviii

Sig. Use as mouth-wash every three hours.

Or:

R. Tinct. myrrh..... ʒii
Liq. antiseptic. U. S. P..... ʒiv

M. Sig. One teaspoonful in one ounce of water as mouth-wash every two hours.

It is very important for an individual who acquires syphilis to have his teeth filled and put in good order by a dentist.

Mixed treatment. During the second year this form of treatment should be pushed. Mercury and iodide of potassium may be given together or alternately for several weeks at a time:

R.	Hydrarg. bichlor	gr. i
	Potass. iodid.....	ʒi
	Tinct. opii.....	ʒi
	Aquæ.....	ʒi
	Syr. rub. idæi..... q. s. ad.	ʒiv

M. Sig. One teaspoonful in water after each meal.

If anaemia is present iron may be combined with the mercury and potassium iodide as:

R.	Potass. iodid.....	ʒi
	Hydrarg. biniodidi.....	grs. iii
	Syr. ferr. iodid.....	ʒi
	Aquæ.....	ʒiss
	Syr. aurant. cortic. q. s. ad.	ʒiv

M. Sig. One teaspoonful in water three times a day after meals.

For a case of marked syphilitic anaemia with lassitude and dyspepsia:

R.	Hydrarg. cum creta.....	gr. iss
	Ferr. redact.....	gr. i
	Quin. sulphat.....	gr. ss
	Pepsini.....	gr. iss
	Pulv. opii.....	gr. 1/6
	Extr. gentian.....	gr. ss

M. et ft. pil. No. i.

Sig. One three times a day after meals.

If it is desired to give iodide of potassium alone use:

R.	Sat. sol. potass. iodid.....	ʒii
----	------------------------------	-----

Sig. 15 drops in water three times a day (one drop equals one grain).

Tertiary stage. Iodide of potassium is a specific in this stage. Such conditions as gummata, nodes, ulcerations, etc., are promptly cured by it:

R.	Potass. iodid.....	3vi
	Aqua.....	3iss
	Syr. sarsapar. co.q. s. ad.	3iii

M. Sig. One teaspoonful in a glass of water three times a day.

Diet in syphilis. Alcohol and tobacco should be avoided as much as possible. Fruit and green vegetables should also be forbidden. The patient should have fresh air, good nutritious diet and a moderate amount of exercise.

The treatment of syphilis at the various springs has no advantage over home treatment.

Salvarsan, 606 or Arsphenamin can be used to good advantage, especially early in the progress of the disease. Its early use usually results in the clearing up of the primary lesions, and prevents the appearance of the symptoms of the secondary stage. It may be given intravenously, intermuscularly or subcutaneously, but is usually injected into the radial artery.

The technic of this injection requires considerable skill and must be given under strictly aseptic conditions. Reactions frequently occur and complications may follow the injection. The technic for using neo-salvarsan or neoarsphenamin is similar to arsphenamin, but this drug is more freely soluble than the other. Without special training the general practitioner can hardly expect to use either of these drugs successfully.

SYPHILIS, PROPHYLAXIS OF.

Personal. The practitioner treating syphilitic patients should be specially guarded in handling specific lesions. He should wear rubber gloves. He should also warn his patient that the disease may be communicated to others by kissing, by sleeping with them, by the use in common with them of eating utensils, pipes, clothing, tooth brushes, towels, etc.

In giving advice to patients who have not contracted

syphilis, but whose fleshly lusts often lead them to have intercourse with prostitutes, the importance of physical and mental hard work as an anaphrodisiac should be insisted on. Early marriage may be recommended in those cases where continence is impossible. Advice by physicians to patients to have sexual intercourse with private or unlicensed or non-inspected prostitutes is nothing short of criminal. Advice, such as Horace gives to have intercourse with a healthy woman (using, perhaps, a condom) is a moral rather than a medical question, but is probably unjustifiable. The present authors themselves differ on this point.

To those who visit prostitutes, temperance is especially to be insisted on, for very many infections are acquired in a state of drunkenness when anti-venereal precautions are neglected. The parts should be bathed after coitus, and antiseptics such as solution of bichlorid of mercury or protargol should be applied locally. Circumcision and the use of condoms lessen the chance of infection.

Public. Clandestine prostitution should be prohibited by the police under severe penalties. Public prostitutes should be registered and compelled to live in special locations or "yoshiwaras." Each prostitute should have a book in which her name, age, nationality, and address are recorded. She should be examined twice a week by a physician who should then sign her book if she is free from infectious disease. Any prostitute doing business when her book is not signed to date should be punished. No liquor should be allowed to be sold, given away, or drunk, in houses of prostitution. Each prostitute should be required to provide the means necessary for securing her own and her visitors' cleanliness. Cases of venereal disease should be at once reported to the health inspector. An ideal condition of things would be one in which the men visiting "yoshiwaras" could be medically inspected as well as the women.

SYPHILIS, HEREDITARY.

Treatment should be started as soon as the diagnosis is made.

Inunctions are well borne by children. Infants may have a drachm of blue ointment (*ungt. hydrarg.*) placed on their abdominal bandage; the child's movements gradually rub it in. For a child of two years, 30 grains may be rubbed in daily for about three weeks, then cease for one week and repeat as before. This should be continued for a year and then followed by mixed treatment.

Calomel (*hydrarg. chlor. mit.*) is also well borne by children; it may be given in $\frac{1}{2}$ to $\frac{1}{6}$ grain doses three or four times a day.

If the father is syphilitic, treatment of the child should be begun in utero by treating the mother.

Hydrarg. cum creta is also a very suitable preparation for children in the dose of one to two grains three times a day.

Prophylaxis. A person who has had syphilis should not marry in less than three years—preferably four or more—after the appearance of the initial sore; in any case a full year after the disappearance of the lesions should be insisted on.

SYRINGOMELIA.

The treatment is symptomatic and is of no avail in checking the progress of the disease. The patient should be warned of the danger of self-injury as the result of the peculiar anaesthesia. Prophylactic measures should be taken to prevent bed-sores, to avoid the over-use of atrophic muscles, to avoid exposure to injurious changes of temperature and especially to avoid bladder complications.

If syphilis is suspected potassium iodide and mercury should be tried for a time. Mud baths and gentle massage sometimes help the contractures, and electricity may relieve pain or parasthesiae.

Tonic and hygienic measures should be adopted

and nourishing food should be given to maintain the patient's strength.

TABES DORSALIS. (LOCOMOTOR ATAXIA.)

The treatment is not so unsatisfactory as was previously supposed. These cases often come to a standstill by proper treatment.

Alcohol, fatigue, sexual excesses, etc., should be avoided.

Begin the treatment by giving mercury and potassium iodide for several months as directed under the treatment of Syphilis.

The pain in the limbs is frequently very severe.
It can be relieved by:

R.	Phenacetini.....	3ii
	Kryofini.....	3i

M. et ft. chart. No. xii.

Sig. One every three hours until relieved.

Or:

R.	Antipyrini.....	3ii
	Morph. sulphat.....	grs. iii

M. et ft. caps. No. xii.

Sig. One only when absolutely necessary for pain.

The frequency and severity of the pains are usually much less pronounced if the patient's diet and general habits are carefully regulated. The faradic current applied to the place of exit of the affected nerves often prevents and relieves the pain.

What relieves one case does not always relieve another; one is benefited by applying the ice-bag to the seat of the pain, another by the hot water bag, and still another by anodyne liniments, as:

R. Chloral. hydrat.

Camphoræ.

Ol. cajuput.....ää 3i

Tinet. capsici..... 3iv

Lin. ammoniæ.....q. s. ad. 3iii

M. Sig. Liniment. Use three times a day.

Rest in bed at the beginning of treatment should

be insisted upon, especially if pain is an early symptom, but the tone of the muscles should be kept up with massage and electricity.

The patient's bowels and urinary apparatus should be carefully looked after. If retention takes place the patient must be taught how to pass a catheter under antiseptic precautions. Infection of the bladder may sometimes be prevented by the administration of Hexamethylenamina (urotropin) in five grain doses three times a day. If the bladder does become infected, then it must be washed out daily with a quart of boric acid solution.

Electricity in this disease is not of much benefit, but tepid baths (80° F. to 90° F.) combined with massage give good results.

The various painful crises which frequently occur in this disease are best controlled by hypodermic injections of morphine ($\frac{1}{4}$ grain) every four hours, if necessary. In an attack of gastric crisis all food and liquids should be withheld from the stomach until morphine has controlled the vomiting.

Perhaps the only drug that is of value in all cases is strychnine. It should be given in $\frac{1}{30}$ grain doses every three hours and kept up for several months at a time. Strychnine also in some cases increases the diminished sexual powers.

Diplopia (double-vision) is a troublesome symptom in some cases for which nothing can be done. If slight it may be relieved by the use of glasses.

Laryngeal crises often respond to a hypodermic injection of nitroglycerin ($\frac{1}{100}$ grain). Repeat if necessary in two or three hours.

In recent years a great deal has been done for the ataxia. Bed-ridden cases have been made to walk by what is known as Fränkel's systematic exercises. The aim of this system of treatment is to re-educate the central nervous system by repeated and carefully planned muscular movements.

TAPE-WORM.

Prophylaxis. All meat or fish should be thoroughly cooked before being used as food, drinking water boiled, and feces cremated which may contain segments or ova, lest they may be eaten by hogs or cattle. Cold storage destroys cysticerci in about a month.

Treatment. Food should be withheld for at least twelve hours. It is best to begin treatment in the evening by a light supper and by giving the following at 8, 9, and 10 o'clock:

R. Hydrarg. chlor. mit..... grs. iii
Sacchar. lact..... grs. vi
Extr. colocynth..... grs. iii

M. et ft. chart. No. iii.

Sig. One at intervals of one hour.

The next morning on rising give:

R. Oleo-resin. felic. maris..... 3ii
Chloroform..... gtts. v
Ol. ricin..... q. s. ad. 3ss

M. Sig. One dose.

Or give the following, especially for children:

R. Pep. sem. (pumpkin seeds)..... 3ii

M. et ft. emuls.

Sig. One dose on rising.

This is a very effective remedy and is not poisonous. It may be repeated each morning until successful.

After either of the above prescriptions has been taken, an active purge should be given three-quarters of an hour later, such as:

R. Tinct. jalap. co 3i

Sig. To be taken in one dose.

A high rectal saline enema should end the treatment. If the head has not come away, segments of the worm will again appear in about six weeks.

TETANUS. (TRISMUS, LOCKJAW.)

Preventive treatment. Thorough antisepsis applied to the wounds which must be cleansed and

cauterized. Remove bits of wadding, gunpowder, and other particles, lay open the wound and cauterize with pure carbolic acid. Neutralize any toxin already absorbed by an injection of at least 5,000 units of antitoxin. Then place patient in a darkened room with floors heavily carpeted, removed from irritant influences, stuff his ears with cotton and allow him to receive no visitors.

Treatment should be instituted on appearance of the symptoms. Subdue the convulsions by the free administration of chloral and the bromides, and the hypodermic injection of morphine and hyoscyanine in large quantities.

To control the spasms and to permit of feeding by the stomach tube, two or three times a day chloroform by inhalation should be used.

The intraspinal injection of a 25 per cent solution of magnesium sulphate has recently proved very successful.

To relax spasm physostigmine may be given hypodermically:

R. Physostigminæ salicylatis..... gr. $\frac{1}{10}$
Aquæ..... m. c

M. Sig. (Each ten minimis represents $\frac{1}{100}$ grain of physostigmine.) Ten drops hypodermically and repeat at intervals of one, two, or three hours until manifestation of full physiological effect.

To eliminate the poison give:

R. Pilocarpinæ hydrochlor..... gr. i
Aquæ..... 3i

M. Sig. Ten drops hypodermically, repeated at intervals of twenty minutes until profuse sweating, or until three doses have been administered.

The Bacelli or carbolic acid treatment consists in the hypodermic injection of a 2 per cent solution of carbolic acid:

R. Phenolis..... 3ii
Aquæ destillat..... 3xii

M. Sig. Inject hypodermically with a suitable syringe from 100 to 150 minims of the solution (two to three grains of carbolic acid) every two or three hours until improvement is noted, then reduce the dose.

As much as six or eight grains of carbolic acid per diem may be given. Persons suffering from tetanus apparently bear well large doses of carbolic acid.

THREAD-WORMS. (SEAT OR PIN WORMS, OXYURIS VERMICULARIS.)

These parasites are most common in children. The drugs used are: quassia, saline solution, carbolic acid, lime water, iron, tannic acid, catechu and kino. Quassia is the best. It is non-irritating and non-poisonous. Give a rectal injection of one ounce of the fluid extract added to a pint of water. It is necessary before injecting to give the patient's bowel a thorough cleansing with hot water and soap. The injection should be retained about 15 minutes, and should go up into the colon. It is necessary to repeat the treatment several times with one or two days' interval.

Internally give:

R.	Hydrarg. chlor. mit.....	grs. xii
	Sacchar. lactis.....	grs. xii
	Santonin.....	grs. xii

M. et ft. chart. No. xii.

Sig. One powder repeated every hour for several hours.

TINEA BARBAE. (BARBER'S ITCH, TINEA SYCOSIS.)

The first step in the treatment is the complete removal of the hair in the affected area. Each day a square inch or so should be cleared of hair. This is an easy matter because the hairs are already loose

Then apply the following:

R.	Sulphur.....	3 <i>i</i>
	Ac. carbolici.....	3 <i>ss</i>
	Lanolin cum oleo.....	3 <i>i</i>

M. Sig. Rub in thoroughly twice a day.

Or:

R.	Naphthol.....	grs. xxx
	Sapon. mollis.	
	Cret. preparat.	
	Sulphur. loti.	
	Lanolin.....	āā 3iii

M. Sig. Rub thoroughly into face at bedtime.

When the patches are inflamed and covered with crusts, the latter should be softened by rubbing with a 5% salicylated oil.

Do not give up treatment too soon.

Prophylaxis. The disease is transmitted not by the barber's razor but by his brush. All articles used by barbers ought to be sterilized after each customer.

TINEA FAVOSA (See Favus).

TOBACCO POISONING, CHRONIC.

Prevention. The use of tobacco should be interdicted in the case of children, women, athletes, convalescents from acute diseases, anæmics, dyspeptics, and persons with heart affections. The combination of the alcohol with the tobacco habit is of special danger.

In smoking the smoke should not be inhaled. Pipes should have long stems and should be kept well cleaned. Do not smoke cigars too close to the end, and avoid chewing the end. It is best to smoke only after meals; this avoids contact of the tobacco juice with the mucous wall of the stomach.

Treatment. Patient should give up the smoking entirely; there is no necessity of a gradual withdrawal as in the cases of the alcohol or morphine habit. The food of the patient should be abundant and easily digested, while fresh air and general tonics are of the greatest service.

Strychnine in full doses is of value and also iodide of potassium when amblyopia is present. For the cardiac troubles and tobacco angina, rest, inhalations

of amyl nitrite, nitroglycerin, digitalis, and other cardiac stimulants are to be recommended.

TONGUE, INFLAMMATION OF (See Glossitis).

TONSILLITIS, ACUTE. (QUINSY.)

The treatment is internal and local.

Internal treatment. The patient must be put to bed. It is very important that the bowels act freely, therefore give a purgative, preferably a saline, e. g., a tablespoonful of Epsom or Rochelle salts, or a bottle of citrate of magnesia.

For the fever and restlessness at the beginning give tincture of aconite in half minim doses every 15 minutes for 6 or 8 doses; it may be combined with half drop doses of tincture of belladonna.

Now place the patient on:

R.	Saloli.....	3i
	Antipyrini.....	3i
	Pulv. Doveri.....	grs. xxiv
M.	et ft. caps. No. xii.	
Sig.	One every three hours.	

Or:

R.	Quinin. sulphat.....	5iss
	Pulv. Doveri.....	3i
M.	et ft. caps. No. xviii.	
Sig.	One every three hours.	

Frequently tonsillitis is a forerunner of acute rheumatism; in these cases give:

R.	Sodii salicylat.....	5iss
	Sodii bicarb.....	3iss
M.	et ft. chart. No. xviii.	
Sig.	One every three hours in hot water.	

Iron is indicated in all forms of tonsillitis:

R.	Tinct. ferri chlorid.....	5iv
	Glycerini.....	5iss
	Syr. simplic.....	q. s. ad. 3iii

M. Sig. One teaspoonful in Seltzer or Vichy water every three hours.

When convalescence sets in give tonics as:

R.	Tinct. nuc. vomic.....	ʒiv
	Acid. sulphuric. aromat.....	ʒiv
	Elix. gentian. glycer. N. F...q. s. ad.	ʒiii

M. Sig. One teaspoonful in water before each meal.

Local treatment. In the beginning of the attack towels wrung out of cold water and covered with oiled silk are very soothing. If there is an over-secretion of saliva, unguentum belladonnæ rubbed on the neck externally is of service.

When the case goes on to suppuration, hot linseed poultices continuously applied for hours do a considerable amount of good. Frequent inhalations of steam give great relief. The patient should sit with a basin of hot water on his knee and then a sheet should be placed over his head.

For the dryness in the post-nasal space the following may be sprayed through the nares every three hours:

R.	Cocain. hydrochlor.....	grs. iv
	Glycerini.....	ʒii
	Acid. carbolic.....	ʒss
	Aquaæ rosæ.....q. s. ad.	ʒvi

M. Sig. Spray through the nose every two hours. Dilute with an equal quantity of water.

Or:

R.	Acidi borici.....	ʒss
	Acid. carbolic.....	ʒss
	Infus. rosæ.....	ʒvi

M. Sig. Spray throat every two hours.

The carbolic acid in the above mixture paralyzes the palatal muscles and prevents the difficult attempts at swallowing mucus or saliva.

When there is much fetor give the following gargle:

R.	Potass. permanganat.....	grs. vi
	Infus. rosæ.....	ʒiv

M. Sig. Use as spray or gargle every two hours. If suppuration occurs, incise the tonsil freely and

allow the pus to escape. Cut from above downwards with a protected knife. Do not scarify the surface of the tonsil but cut into it if pus is present.

When attacks of tonsillitis recur frequently it is best to remove the tonsils.

TONSILLITIS, CHRONIC.

This may or may not be associated with hypertrophy. The crypts contain white or yellowish cheesy masses which frequently give a foul odor to the breath. These crypts cause inflammation, irritation and frequently abscess.

Open each crypt freely by means of a sharp knife, cutting from top to bottom. Then paint the tonsil with tincture of iodine. This simple procedure usually gives immediate relief.

TONSILS, HYPERSTROPHY OF.

General and local treatment may be tried for several months. General treatment consists in giving fresh air, proper diet, tonics such as iron and cod liver oil and local applications. Every morning the neck should be sponged with cold salt water and then the tonsils should be vigorously rubbed. Give internally syrup of the iodide of iron in 10 to 30 drop doses three times a day.

The tonsils should be painted with:

R. Tinct. iodini.

Glycerini.....aa 3iv

M. Sig. Paint tonsils once a day.

If reduction in size does not follow then remove them with the tonsillotome or with the scalpel and dissecting forceps.

The haemorrhage following this operation is usually slight, but if it should be considerable, apply a piece of ice to the bleeding surface with a pair of forceps, or make pressure with gauze soaked in adrenalin solution.

TOOTHACHE.

Determine which tooth is giving the trouble. Do not rely on the testimony of the patient, but examine all suspected teeth with a mouth mirror and an exploratory point. Cleanse out the cavity when found with a syringeful of warm water to remove irritating particles of food, then apply warm oil of cloves on cotton wool to the cavity. Strong carbolic acid or creosote may also be applied to the tooth with great care so as not to injure the skin or mucous membrane. If there is no cavity the gum may be rubbed with ammonium chloride, tincture of opium, cocaine lotion, camphor and chloral hydrate or chloroform. In rubbing the gum with chloroform great care should be taken to keep it away from the angle of the mouth and the lips. Hot fomentations to the inside of the mouth also help to relieve the pain.

If the gums are inflamed the following may be given:

R.	Cocaine hydrochlor.....	grs. ii
	Chloroform.....	m. xv
	Glycerin.....	3vi
	Ol. rosæ.....	m. vi

M. Sig. Apply small quantity to painful gums.

For an exposed nerve the following may be given:

R.	Extr. opii.....	grs. xv
	Pulv. camphoræ.....	grs. x
	Balsam peruv.....	grs. xx
	Mastic.....	grs. xxx
	Chloroform.....	3v

M. Sig. Cleanse out cavity, and insert absorbent cotton saturated in this solution.

In some cases it may be necessary to extract the tooth. The following may be given for the post-extraction pain:

R.	Chloroform.....	3i
	Ether.....	m. lxxx
	Cocain hydrochlor.....	grs. ii
	Camphor.....	grs. xxx
	Tinct. opii.....	m. xxx

M. Sig. Saturate pledge of absorbent cotton and press into cavity.

In other cases it may be advisable to fill the cavity with some poor conductor of heat such as gutta percha or oxyphosphate cement.

TORTICOLLIS. (WRY-NECK.)

Examine carefully the ears, eyes, throat, teeth and spinal column for peripheral irritation; observe the condition of the thyroid gland. Treat any cause when found.

If congenital torticollis is discovered in early infancy it may be overcome by massage and stretching. The child's arm is held firmly by one person and his head is drawn in the opposite direction by another person while the contracted muscles are massaged vigorously. This treatment should last ten minutes and should be carried out twice daily.

In acquired torticollis the general health of the patient should receive attention. Massage and systematic exercise of the affected muscles are of great service. The neck may be wrapped in a heavy collar of cotton reaching from shoulder to ears. It should be so thick as to support the head and held in position by circular bandages.

If the torticollis is rheumatic in character, the following may be given:

R.	Antipyrini.....	grs. lxxx
	Sodii salicylat.....	3ii
	Syr. aurantii.....	3iv
	Aquæ ad.....	3ii
M. Sig.	One teaspoonful every three hours till relieved.	

And as a liniment:

R.	Menthol.....	grs. x
	Oleoresin. capsici.....	grs. iv
	Methyl salicylat.....	3 <i>i</i>
	Ichthyol.....	3 <i>i</i>
	Petrolat.....	3 <i>v</i>
	Lanolin.....	3 <i>x</i>

M. Sig. Anoint the painful muscles freely three times daily.

In spasmodic torticollis the following may be given internally:

R.	Strych. sulphat.....	gr. $\frac{1}{4}$
	Quinin. sulph.....	grs. xx
	Extr. conii.....	grs. vii
	Extr. belladonnæ.....	grs. ii

M. ft. pil. No. xv.

Sig. One after meals.

TRACHEOTOMY.

This operation with its variants, thyrotomy, cricotomy, laryngotomy, laryngo-tracheotomy, and crico-tracheotomy are indicated in any affection, laryngeal or supra-laryngeal, which is threatening asphyxia. These conditions may be inflammatory, traumatic, neoplasms or neuroses.

In such an inflammatory condition as diphtheria the operation is indicated when the heart is weak or when there is great asphyxia, much secretion or gangrenous, diffuse or septic infiltration of the lungs.

Of all operations for the relief of asphyxia crico-tracheotomy is the easiest. In young children the softness and elasticity of the cricoid make its incision easy and the parts may easily be separated so as to admit of the introduction of a cannula. The cricoid cartilage is, besides, in young children, the most prominent and easily identified structure of the air tube.

TRACHOMA.

The treatment of this malady must be long continued to produce satisfactory results.

In the beginning of the attack when there is considerable photophobia and lachrymation, the eyelids should be washed out four times a day with a saturated solution of boric acid or a 10 per cent solution of protargol twice a day.

As soon as the irritation abates a 2 to 4 per cent solution of nitrate of silver should be painted on the lids with a camel's hair brush once a day. The excess should be washed off with a salt solution. A drop or two of a 4 per cent solution of cocaine should be put into the eye before painting it with the silver nitrate.

When the disease has reached the chronic stage, the lids should be rubbed with pure sulphate of copper, or a 20 to 40 per cent solution of protargol applied.

The trachoma follicles should be expressed by the use of the roller forceps. The eye must first be cocainized.

An infusion of jequirity of the strength of 2 per cent is used in cases of trachoma to produce an inflammation to replace the pre-existing inflammation. This mode of treatment is very successful. Twenty-four hours should elapse between the applications of the infusion. This should be kept up for three or four days or longer. The severe inflammation which follows soon subsides and the corneal opacity in a small percentage of cases creeps up and destroys the trachoma infection.

Relapses frequently occur after all forms of treatment.

If the patient is anæmic give iron, arsenic, and cod liver oil:

R. Ferri reduct.....	3 <i>i</i>
Strych. sulphat.....	gr. $\frac{2}{3}$
Zinci phosphid.....	gr. iss
Ac. arsenios.....	gr. $\frac{1}{4}$
M. et ft. caps. No. xxiv.	
Sig. One after each meal.	

TREATMENT OF DISEASE, CLIMATIC.

First. Coast climates. The West Indian islands have a uniform high temperature varying between 68° F. and 83° F. Their action is sedative and relaxing. The Isle of Pines, south of Cuba, has a sandy soil and is famous for its pines, and has a reputation among Spaniards for its value in pulmonary tuberculosis. Emphysema with chronic pulmonary catarrh, and some cases of pulmonary tuberculosis, are said to do well at Jamaica and Barbados, but there is always the danger of failure of the digestive system with loss of appetite and chronic diarrhoea. Bermuda in late winter and early spring is suitable for convalescents from acute illness and in cases of bronchitis and insomnia. It is too damp for tuberculosis. The climate of Florida and that of the adjacent coasts of Georgia and South Carolina is useful during the winter for delicate persons suffering from emphysema, chronic bronchial catarrh, and early phthisis. These states, however, should be avoided during July, August and September when fevers are prevalent.

The western part of Southern California has a warm and dry climate with a large proportion of sunshine and a small rainfall. There is a considerable daily range of temperature, the prevalent westerly wind causing a fall of temperature in the afternoon. The damp, chilling sea-fogs rolling in from the Pacific are a drawback. The chief health resorts are: Los Angeles, with a mean annual temperature of 61° F., and Pasadena and Redlands at a higher elevation among the foothills; San Diego with a temperature of 54° F. in January and 69° F. in August; Santa Barbara with a temperature of 50° to 55° F. in winter and 65° to 70° F. in summer. Monterey, further north, is more exposed to fogs from the Pacific. The climate of the Pacific coast has an exciting effect on the nervous system. Sleeplessness is a common complaint on first reaching the coast, but in most cases this soon passes

off. Neuralgia is often aggravated, and any hysterical or melancholic tendency is frequently made worse. Most persons, however, feel invigorated both in mind and body. The Californian climate, as it allows patients to spend a large portion of their time out of doors, is also suited to the treatment of tuberculosis, but adequate sanatoria for this disease are singularly lacking both in California and Colorado.

Second. Elevated or mountain climates. In high altitudes the patient usually at first experiences difficulty in breathing; any exertion causes him to pant; frequently he cannot sleep; sometimes he has headache, he may have great thirst and his throat may be dry; his bowels may be constipated and he has generally a listless feeling. The respirations are quicker and the pulse accelerated, while the amount of carbonic acid and water given off by the lungs is increased. Acclimatization may take place in from three days to a month, and then the respiration will be fuller and deeper than on the plain, the bowels become regular, and sleeplessness gone, and the appetite improved. The air cells of the lungs are better flushed out and the resistance of the lung tissue to micro-organisms is increased. The cold at these high altitudes produces a more rapid interchange in the tissues, and in consequence of this greater activity the tissues acquire an increased resistance to the action of micro-organisms. An increased resistance may also be brought about by the large amount of time spent in the open air, the tonic action of the dry, cold air, the purity of the atmosphere, and the large amount of sunlight.

The elevated resorts of the Rocky Mountains are situated in the State of Colorado, on the eastern slopes of the chain as it traverses that territory, at altitudes of from 5,000 to 7,000 ft. The chief resorts are:—Denver (5,000 ft.), with a mean annual temperature of 50° F. and a rainfall of 14 inches. The mean temperature of January is 27.2° F. and of August 72.8° F.

Colorado Springs (6,022 ft.), with a mean temperature of 46.4° F. Glenwood (5,000 ft.), on the Pacific slope, has a damper climate than that on the other slope. Hotel accommodation is excellent.

Third. Forest and woodland climates at a moderate elevation of 500 to 2,000 ft. These climates have the advantage of purity of the air, absence of dust, shelter from wind and fragrance of the atmosphere from the woods which consist of fir, pine, white cedar, tamarack, red spruce and balsam. The plateau of the Adirondacks, an extensive forest and lake region, contains the following health resorts: Saranac Lake (1,535 ft.), with the Adirondack Cottage Sanitarium founded by Dr. Trudeau for tuberculosis patients of moderate means. Paul Smith's station, with the Sanitarium Gabriels. Lake Placid (1,863 ft.), Tupper Lake (1,546 ft.), Keene (1,000 ft.), Elizabeth Town (759 ft.), Old Forge (1,684 ft.), Fulton Chain (1,700 ft.), Saranac Inn (1,530 ft.), North Elba (1,385 ft.), Chazy Lake (1,500 ft.), Blue Mountain Lake (1,800 ft.), Schroon Lake (806 ft.)

The climate of these resorts is suitable for the early stages of tuberculosis. It is also useful for the arrest or amelioration of advanced cases of tuberculosis. It is also beneficial in cases of chronic bronchitis, asthma and hay fever. It is not suited for cases of rheumatism or renal disease or for patient beyond middle life.

Fourth. Desert climates. These are characterized by purity and dryness of the air, with a maximum of sunshine and heat. New Mexico has been summarized in the sentence "Sun, Silence and Adobe." The adobe soil does not readily absorb moisture, and when baked in the sun gives rise to a very fine dust. Dust and sand storms are therefore frequent, and constitute one of the disagreeable features of desert climates. These climates are well adapted for chronic cases of tuberculosis and are also beneficial in cases which progress slowly.

The chief health resorts in New Mexico are Raton, a small town at an altitude of 6,600 ft. It faces south and east, with the Raton range of mountains behind it, and has several small hotels and boarding houses at moderate rates (25 to 30 dollars per month). Las Vegas, at an elevation of 6,384 ft., with a handsome hotel. There is also a sanitarium in charge of Sisters of Charity. Las Vegas Hot Springs, at an altitude of 7,000 ft. and at a distance of seven miles from Las Vegas. It has an excellent winter climate, warm and dry, and good accommodation can be had at the Montezuma hotel. There are some excellent mud baths which are of service in rheumatism. Santa Fe has a fair hotel and a good sanitarium in charge of Sisters of Charity. Other resorts with good hotels are: Albuquerque (5,000 ft.), Deming (4,300 ft.), and Silver City. Fort Bayard (6,040 ft.), nine miles to the north of Silver City, has been converted into a government hospital for the treatment of pulmonary tuberculosis, and the results obtained so far are very encouraging. Las Cruces (3,872 ft.) has an excellent ranch, "The Alameda," which can accommodate forty guests at from ten to fifteen dollars per week.

Arizona has also many health resorts. The plain country of that state has been aptly called the "Egypt of America." The chief resorts are: Yuma (elevation 140 ft.), with a dry and warm winter climate but with a terribly hot summer. Phoenix (1,100 ft.), with good hotel accommodation. Tombstone (2,300 ft.), Tucson (2,400 ft.), Castle Creek Hot Springs (2,300 ft.), Oracle (4,500 ft.), and Prescott (5,300 ft.) All of these resorts have a good winter climate, and a higher or lower locality may be chosen according as a more or less bracing climate is desired.

TRICUSPID VALVE, DISEASE OF (See Endocarditis, Chronic).

TRICHINOSIS. (TRICHINELLIASIS.)

Prophylaxis. Pork, ham, sausages and similar

preparations should be thoroughly cooked before being brought on the table. In countries where these are consumed uncooked, a regular service of official experts should conduct the systematic examination of all carcasses with the microscope.

Pig-sties ought to be kept clean and free from rats and the pigs ought not to be fed on uncooked offal.

Treatment. A quick-acting emetic should be given after the ingestion of trichinous food, followed up by a smart purge such as calomel up to 20 grains. After the migration of the parasites, relieve the pain by opiates, hot baths, and warm embrocations. Maintain the strength of the patient by concentrated liquid diet and treat special symptoms as they arise.

TRISMUS (See Tetanus).

TRISMUS NEONATORUM. (TETANUS OF THE NEW-BORN.)

Prophylaxis. In the dressing of the cord and in the treatment of denuded surfaces the strictest aseptic precautions should be observed, as the umbilicus is the usual point of entrance of the tetanus bacillus.

Treatment. Give remedies to lessen the irritability of the nervous centers, e. g.:

R.	Atropinæ sulphat.....	gr. $\frac{1}{50}$
	Chlorali hydrati.....	grs. x
	Mucilaginis amyli.....	5x

M. Sig. Two teaspoonfuls by rectal injection until spasm is relieved.

Or:

R.	Coninæ hydrobromidi.....	gr. $\frac{1}{5}$
	Aquaæ destillat.....	5ii

M. Sig. Two to four minimæ hypodermically and repeat frequently to relax spasm.

Or:

R.	Chlorali hydrati.....	grs. xvi
	Potass. bromidi.....	grs. xvi
	Mucilagin. acaciæ.....	5iv
	Aquaæ.....	q. s. ad. 5ii

M. Sig. One teaspoonful in a little water every hour until spasm is relieved.

All unnecessary handling should be avoided and everything done to prevent disturbing the child. If the jaws cannot be forced apart it may be necessary to feed the child and give stimulants by the nasal tube.

TUBERCULOSIS, ACUTE MILIARY. (GALLOPING CONSUMPTION.)

Treatment is of no avail. It is rare for recovery to take place. Death occurs in from 6 to 21 days. All that can be done is to treat symptoms as they arise. When the fever runs high, use systematic cold sponging and the ice-bag to the head. Stimulants are always indicated on account of the extreme prostration. Give brandy, ammonia, caffeine, and strychnine:

R.	Spt. nitroglycerin 1%	m. xxv
	Strych. sulphat.....	gr. $\frac{2}{3}$
	Tinct. digital.....	3iv
	Spt. vin. gall.....q. s. ad.	3iii

M. Sig. One teaspoonful hypodermically or by mouth every three hours.

TUBERCULOSIS OF LUNGS. (CONSUMPTION, PHTHISIS.)

The treatment of this disease has been entirely changed within the last five years. The physician instead of filling the patient with nauseous drugs, now depends on "outdoor" treatment and "forced feeding."

If the diagnosis is made early, and proper treatment instituted most cases of tuberculosis get well. There is but little to be done after the patient has reached the third stage.

"Outdoor" treatment. This is the most important method of treatment and the one which has given

the best results. The patient should have pure air and plenty of it. To give ideal results this line of treatment should be carried out at home by those who are in ordinary good circumstances.

The patient should have a large, well-ventilated room exposed to the sunlight. The windows should remain open day and night, so that there is a continuous circulation of pure air. The patient should be out of doors most of the day in warm or cold weather but should stay indoors during wet and stormy weather. He may recline in a chair or drive or take short walks. Fatigue should never be produced. Some light employment is preferable to doing nothing, so that the mind is engaged. The patient should not visit churches, lecture halls, theaters, railway cars, etc., because the air is impure in all crowded places.

Sanitarium treatment has given good results but it has its disadvantages. The patient continually sees others who are suffering from the same disease, life becomes monotonous, and last, but not least, he gets homesick.

The laborer who has to provide for himself and family, who cannot afford to go to a sanitarium or to the country may continue at his work but it must be outdoor work. He must look after himself carefully, keep his feet dry and warm, and avoid exposure to wet and cold. Those who work in shops and factories must change their occupation.

Diet. It is necessary to give the most nourishing food in quantities as much as the stomach will take care of.

The following articles of diet should be forbidden: veal, pork, salt meat, recooked foods and pickles.

The following are allowed: soups, broths, meat essences and juices, raw eggs, oysters, fish, poultry, game, scraped, pounded or minced meat, fresh vegetables, clean ripe fruit, butter, milk, kumiss,

cream, tea, coffee, cocoa, chocolate, alkaline mineral waters, beer, wine and spirits in moderation, and malt extract.

All food should be of the best quality, appetizingly cooked and served, and of the greatest variety possible.

On waking give hot milk with a little sodium citrate and gradually increase the milk in quantity till 12 ounces are taken.

Give a substantial breakfast an hour later, preferably in bed, before dressing.

An hour and a half after breakfast give a raw egg beaten up with a little milk, raw meat or beef juice.

At noon give a substantial meal with beer or red wine.

An hour and a half after this give milk, raw eggs or raw meat.

In the afternoon give tea and milk with raw eggs or raw meat and plenty of bread and butter.

At 7 P. M. give a substantial meal.

At bedtime give milk with a raw egg beaten in it.

Medicinal treatment. This must not be neglected even if it is not the most important part of the treatment.

Drugs to increase the appetite such as bitter tonics are extremely useful:

R.	Tinct. nuc. vomic.....	5iv
	Tinct. gentian.....	5ii
	Tinct. quassiae.....	5ii
	Tinct. cardamom.....	5iii
	Ess. pepsin.....q. s. ad.	5iii

M. Sig. One teaspoonful in a wineglass of water before each meal.

Other tonics such as iron, arsenic, strychnine and hypophosphites should be given:

R.	Elix. ferr. quin. et strych.....	5vi
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Sig. One teaspoonful in water after each meal.

Or:

R. Syr. hypophosph. co..... 3 vi
Sig. One tablespoonful after each meal.

Or:

R. Strych. sulphat..... gr. $\frac{2}{3}$
Acid. arseniosi..... gr. $\frac{1}{4}$
Manganes. dioxid..... grs. xii
Ferrous carb. mass..... 5 ii
Extr. gentian..... grs. vi

M. et ft. caps. No. xxiv.

Sig. One after each meal.

Cod liver oil has been given for decades and is probably more popular than useful in this disease. Pure cream is of more value and is more palatable. A pint of cream may be taken daily in divided doses. Cod liver oil may be given in the advanced stages of the disease as a food.

Guaiacol carbonate may be given in 5 grain capsules three times a day as routine treatment against the tuberculous process.

Creosote has recently been discarded on account of its irritating action on the stomach, but frequently when the cough is dry and irritating and does not respond to other treatment, it is of much value. It should be given in capsules after each meal with a little olive oil:

R. Creosoti..... m. xxiv
Ol. olivæ..... 3 iss

M. et ft. caps. No. xxiv.

Sig. One after each meal.

The irritating cough which comes on usually after meals is frequently due to particles of food lodging in the pharynx and may be relieved by gargling with hot water or with hot water and an antiseptic added.

Cough can frequently be controlled by the patient's will. He should practice restraint. If it becomes necessary to prescribe for the cough, then heroin or codein may be given:

R.	Codein. phosphat.....	grs. iv
	Syr. lactucar.....	3iv
	Syr. tolutan.....	3i
	Syr. prun. virg.....	q. s. ad.

M. Sig. One teaspoonful every three hours.

Or:

R.	Heroini.....	grs. ii
	Tereben.....	3ii
	Spt. chloroform.....	3iv
	Ac. hydrocyan. dil.....	m. xxiv
	Syr. acac.....	q. s. ad.

M. Sig. One teaspoonful every three hours.

Night sweats are very weakening and difficult to control. The patient should not cover too heavily and the atmosphere of the room should not be too warm. Sponging the body with quinine water (one drachm to the pint) is frequently successful in mild cases. If further treatment is necessary see under the heading Night Sweats.

For the fever little special treatment is necessary. It usually disappears with the general improvement of the patient. Sponging with water and alcohol should be tried first and if this fails then give the following:

R.	Phenacetin.....	3iss
	Anmon. carbonat.....	grs. x
	Sacchar. alb.....	5i

M. et ft. chart. No. xx.

Sig. One twice a day if necessary.

In the advanced stages of tuberculosis, diarrhoea is frequently a very troublesome and exhausting complication.

For this give either of the following:

R.	Plumbi acetat.....	grs. xlviii
	Pulv. opii.....	grs. xxiv
	Pulv. camphoræ.....	grs. xxiv

M. et ft. caps. No. xxiv.

Sig. One every three hours.

Or:

R.	Bismuth subnitrat.	
	Tinct. opii.	
	Tinct. gambir. comp.	
	Tinct. cardamom.	
	Aq. menth. pip.....	āā 3iv
	Syr. acaciæ.....	q. s. ad. 3iii

M. Sig. One teaspoonful every three hours.

Or:

R.	Salol.....	3iss
	Pulv. opii.....	grs. xviii

M. et ft. caps. No. xviii.

Sig. One every three hours.

Hæmoptysis should be carefully treated. The indications are (1) to stop the haemorrhage and (2) to prevent its recurrence.

One of the most important points in treatment is to allay the patient's fears. He should be assured that he is not in any danger and $\frac{1}{4}$ grain morphine sulphate with $\frac{1}{60}$ grain atropine sulphate may be given hypodermically. He should be forbidden to sit up or even talk. Cold applications should be made to the chest. In very severe cases a hypodermic injection of $\frac{1}{6}$ to $\frac{1}{5}$ grain of atropine sulphate will cause the cessation of the haemorrhage. Ergot should never be given in pulmonary haemorrhage.

Faradization of the skin of the chest, injections of gelatin, and ligation of the extremities are other remedies highly recommended for the treatment of haemorrhage in this disease.

In preventing recurrence we are not so successful. Drugs to reduce the arterial tension are of benefit, as nitroglycerin $\frac{1}{60}$ grain, morphine ($\frac{1}{8}$ grain), aconite and acetate of lead.

Hydrotherapy is an important adjunct to treatment. The patient each morning should take a rough towel wrung out of cold water and rub his body briskly until a general redness results. At first it may be necessary to restrict the rubbing to the chest, but the

patient soon appreciates its benefit and takes in the whole body.

Vaccine treatment. Remarkable results have been accomplished with vaccine therapy in local tuberculosis, but so far the treatment of the pulmonary form is still in the experimental stage.

Tuberculin treatment under proper conditions is unquestionably of great benefit. It should not be used in acute or advanced cases, nor in those that are complicated by streptococcus, staphylococcus, or pneumococcus infection. Neither should it be used when the temperature is above 99.5° F. Acute cases do better on forced feeding and fresh air. The more chronic the disease the better the results, if no complications exist. The treatment, to do good, must be continued at least from six months to a year. The injections, if beneficial, improve the patient's appetite, the fever and cough disappear, and a gain in weight soon follows.

Intolerance to the tuberculin or over dosage is evidenced by anorexia, malaise, headache, sleeplessness, loss of strength and weight, and other constitutional disturbances.

It is very essential to begin with exceedingly small doses and to progressively increase as the patient's resistance increases; at first the intervals between injections should be from three to five days, later only once a week.

The initial dose ought to be $\frac{1}{1000}$ milligram and each succeeding dose ten times the size of the previous dose, if no reaction occurs. After the dose of 1 mg. is reached the injections are made only once a week until the maximum dose of from 5 to 20 mg. is administered every 14 to 20 days.

The injections are best made into the tissues of the chest or the back at about the height of the angle of the scapula.

Climatic treatment. In many cases of incipient tuberculosis it is of benefit to send the patient to a

high altitude. A few cases do not do so well, and a few are harmed by it. Never send a patient in the third stage to a high altitude. They either come home to die or are brought home dead.

Since the effect of high altitudes is to expand the thorax because of the diminished atmospheric pressure, and to flush out the stagnant air from the air vesicles, this can be imitated at the sea level or at low altitudes. The patient is instructed to take deep inhalations when in the open fresh air, to retain the air for a few seconds and then slowly expel it.

The opinion of the authors as a result of close investigation is that tuberculosis can be cured in any climate. Home is the best place to treat the patient, the best place to live, and if it must come to that, the best place to die.

TUBERCULAR FISTULA AND ABSCESS.

In the last two years much success has resulted from the use of Beck's Bismuth Paste in the treatment of sinuses, fistulæ and abscesses.

The paste is composed of:

Bismuth subnitrate..... 33%

Petrolatum, yellow..... 67%

It should be injected by a strong, conical-pointed glass syringe, like the ordinary urethral syringe. Not more than 100 grammes should be used at a time, as toxic effects may follow.

Tubercular processes yield very rapidly to this treatment. Frequently one or two injections is all that is necessary to heal an abscess or sinus of long standing.

TUBERCULOSIS, PROPHYLAXIS OF.

(a) Compulsory notification of phthisis. (b) The removal of those conditions of domicile and of occupation which are known to promote the incidence of the disease, including the regulation of certain dusty trades. (c) The diffusion of knowledge by medical men, pamphlets, etc., regarding the

nature and modes of spread of the disease, and the precautions which should be taken in order to prevent its extension. (d) The testing of sputum and other suspected discharges, and of milk, meat, etc., supposed to be tuberculous, the reports to be furnished free of charge. (e) Local authorities should undertake, without charge, the disinfection of houses recently occupied by phthisical persons. (f) The establishment of sanitoria and isolation accommodation for the cure of phthisical patients, and the isolation of those who are a distinct source of danger to fellow lodgers or workers. (g) The enforcement of measures against spitting in public conveyances and in places of public resort. (h) The efficient sanitary supervision of dairy farms, dairies, and milkshops. The periodic veterinary inspection and testing by tuberculin of milch cows, and the slaughter of tuberculous animals. The prohibition of the sale of milk of cows affected with tuberculosis. (i) The proper inspection of meat in public abattoirs and the adoption of due precautions for the control of imported meat and milk.

TUMOR OF BRAIN

Every case should receive the benefit of the doubt and be treated for syphilis for two or three months. This treatment frequently relieves the headache, no matter what the cause of the tumor. The ice-bag, morphine, atropine, and chloral often temporarily relieve the symptoms.

A small percentage of the tumors of the brain are accessible to surgery. If they are not removable, at least intracranial pressure is relieved.

TURKISH BATHS, DIRECTIONS FOR TAKING.

The best method of taking a Turkish bath is to go at once into the hottest room at a temperature of about 230° F. or higher, and remain five minutes or less. Then move into the second room at a temper-

ature of about 190° F. for five minutes. Afterwards remain for twenty minutes in the coolest of the three hot rooms at a temperature of about 120° F. before being shampooed. By this method the hottest room is encountered before there is any heart fatigue. Its high temperature initiates perspiration, which begins freely in the second room, and is continued freely in the third. Many bathers find that the perspiration is increased by drinking freely tea, mineral water, hot or cold water. Others have a hot douche before entering the first hot room.

TURPENTINE, POISONING BY.

Empty the stomach by means of the stomach tube or with an emetic. Give one ounce of magnesium sulphate in a glassful of water as a purge. Give morphine sulphate ($\frac{1}{3}$ grain) hypodermically, and demulcent drinks.

TYPHOID FEVER, PROPHYLAXIS OF.

Since the bacillus of typhoid fever is conveyed by drinking water, milk, oysters, shell-fish, ice, and flies, these sources of contagion must be carefully avoided, especially during epidemics.

Choose a room with good ventilation and sunshine, and as much isolated as possible. It should have easy means of disposing of soiled linen and excreta, without contaminating others. The feces of the patient should be placed in a receptacle which contains about a pint of a suitable disinfectant, such as a solution of formalin (10%) or of carbolic acid (5%). Cover the feces completely with the disinfectant and mix them thoroughly with a stick, which must be afterwards burned, and empty them after standing for some time.

Disinfect the urine also with about one-fortieth of its volume of formalin. The urine may also be disinfected while in the bladder of the patient, by giving him ten-grain doses of urotropin three times

a day for two days each week till convalescence is over.

Soiled bed-linen and other infected articles should be soaked in a five per cent carbolic acid solution and then boiled or exposed to dry heat in a disinfecting chamber. The sputum also should be disinfected and then burned. The hands of nurses and attendants as well as thermometers and other utensils should also be carefully washed and disinfected.

In country places disinfection is most important. All stools from a typhoid patient should be carefully disinfected with an equal quantity of slaked lime and four volumes of water, then burned after standing for two hours.

After each stool the perineum should be sponged with solution of bichloride of mercury (1 to 2,000), and, when there are involuntary evacuations, the thighs and back should be sponged as well.

During an epidemic, healthy persons should be inoculated with typhoid virus. It is claimed that this preventive inoculation not only protects against the disease, but renders the disease less severe in the inoculated persons if they do become affected. Typhoid could probably be effaced by systematic co-operation regarding sewage regulation and water supply. A clean catchment area is essential for a satisfactory water supply.

TYPHOID FEVER. (ENTERIC FEVER.)

Up to the present time there is no specific treatment of typhoid fever. There are, however, certain procedures which lessen its mortality. These are: 1st—Attention to rest and diet. 2d—Careful nursing. 3d—Hydrotherapy. 4th—Intestinal antiseptics.

Rest, diet, and nursing. As soon as the disease is suspected the patient should be immediately put to bed, and under no circumstances allowed to leave it until convalescence is well established. A bed-

pan should be used from the beginning to prevent the patient from getting out of bed even for a few moments. When possible the patient should be placed in the largest, best lighted, and best ventilated room in the house. A room with a sink should be avoided. If the room is large enough, two beds of the same height should be placed in it, so that the patient may be moved with the least amount of exertion from one to the other, thus allowing the bed to be made and the linen changed every second day with ease. Feather beds should be discarded whenever possible, and a hair mattress covered with a rubber cloth and a sheet substituted. The bed-clothes should be kept well smoothed out and the patient's back, hips, and heels should be frequently bathed in alcohol to prevent the formation of bed-sores. The position of the patient should also be frequently changed.

Careful nursing and diet regulation are the life-saving agents in typhoid fever. In no other disease is an appropriate liquid diet of more importance than in the one under consideration, and not only must it be liquid, but also digestible and palatable; furthermore, it should leave the least possible residue. All clinicians agree that the ideal food for typhoid fever is milk when it fills those requirements. If it is thoroughly acted upon by the stomach before entering the intestines there will be little chance of its mechanically irritating the ulcerated surfaces. The stools should be examined daily for undigested curds of milk, because when present they are extremely liable to cause fermentation, gases and ptomaines, the chief factors in distension and perforation.

The milk may be given raw, boiled, or diluted with plain water, seltzer, apollinaris, or lime water. When diarrhoea is present, it is best to give it boiled. The quantity of milk given each patient varies in

quantity from one quart to three quarts in twenty-four hours; the average quantity that is well borne by adults being four to six ounces every two or three hours night and day. This quantity is usually sufficient to tide them over the height of the fever.

When the milk is not being properly digested, one of three things must be done: (1) The quantity must be reduced; (2) it must be predigested or peptonized, or (3) it must be abandoned entirely. On some persons in perfect health milk acts like a poison. They either become constipated, with clay-colored or white stools, or else get diarrhoea, the result of the non-digestion and fermentation of the milk. When these subjects are attacked by fever, they stand it still less than in health. Kumyss, buttermilk or malted milk must then be given. We prefer kumyss if it can be obtained; one or two quarts a day can readily be digested by the weakest stomach. It is also a good diuretic. Buttermilk and malted milk may also be given as a change from time to time, especially in those cases where the prolonged use of milk has turned the patient's stomach against it. Beef juices, beef tea, and meat extracts should not be given when the bowels are loose, because they aggravate the trouble.

When the temperature returns to normal, about the end of the fourth week, the patient becomes ravenously hungry, so that it is sometimes difficult to prevent them from stealing solid food, or from obtaining it by working on the sympathy of friends. In severe cases, no solid food of any kind should be allowed until the temperature has remained normal for ten days. In the milder cases, where there has been little gastric catarrh and the digestion is good, we can begin solid food two or three days earlier. It is best to begin with as light food as possible, and then allow a little more each successive day. Allow a diet somewhat like the following:

First day: One or two cups of chicken broth and one piece of milk toast.

Second day: Home-made beef tea, a cup of weak tea or coffee, and a biscuit.

Third day: A soft-boiled egg, cream toast, and a little scraped beef in soup.

Fourth day: Two or three soft-boiled eggs, rice pudding and a baked potato.

Fifth day: A small piece of chicken breast, a baked apple, and one or two baked potatoes.

Sixth day: A small piece of tenderloin steak, mashed potato, bread and butter and rice pudding.

On the seventh day, the patient is allowed to select his diet from the previous six days; after that he is allowed anything he desires except fried and fat foods. If eating causes distress, the diet should be immediately reduced for a few days longer.

Thirst during typhoid fever is a very prominent symptom, and sometimes a very troublesome one. Allow large quantities of water that have been previously boiled and cooled. We are not in favor of giving ice, because in several cases it increases instead of decreases the intense thirst.

The free use of water favors the elimination of waste products from the system through the kidneys. Eight or ten drops of dilute phosphoric acid may be occasionally added to a tumblerful of water when the patient desires it. Not only does it seem to allay thirst, but also to aid digestion.

A pleasant refrigerating drink is that known as "imperial drink." For its formula and that of other drinks see **Drinks for the Sick**. Whisky and brandy should not be given unless specially indicated.

HYDROTHERAPY.—Systematic cold sponging should be begun in each case as soon as the disease is suspected. Equal parts of water and alcohol may be used. When the temperature goes above 102.5° F., the patient should be thoroughly sponged every

two hours; otherwise every three or four hours as necessity requires. The limbs should first be sponged and dried in succession, then the trunk; each sponging should take up fifteen minutes. An ice-bag to the head greatly increases the efficiency of the sponging. When the temperature can not be sufficiently controlled by sponging a wet pack is necessary. The patient is wrapped in a sheet which has been wrung out in cold water and kept constantly wet by the addition of more water. For the intense headache of the first week of the disease nothing gives as much satisfaction as the ice-cap or ice-bag.

There is no doubt that antipyretics, while reducing the temperature, reduce the patient's strength and resistance, and they should therefore never be given.

The Brand method of cold baths is no doubt in skillful hands the treatment which gives us the lowest mortality, but it is very impracticable in private practice, and is strenuously objected to both by the patient himself and by his relatives. We believe that cold sponging carried out systematically accomplishes the same good. Cold sponging, like the cold bath, undoubtedly strengthens the heart, keeps the mind clear, lessens nervous symptoms, induces sleep, and diminishes muscular twitchings and tremors.

The mouth should be kept scrupulously clean. Nothing is so liable to coat the tongue as milk. After taking a glass of milk the mouth should be rinsed out with a saturated solution of boric acid. When this is faithfully done we seldom see those dry, brown, leathery, and fissured tongues called "typhoid tongues." With strict aural cleanliness we seldom find cases of abscess of the parotid or middle ear.

Medicinal treatment. As soon as typhoid fever is suspected give:

- | | | |
|----|--------------------------|----------|
| R. | Hydrarg. chlor. mit..... | grs. xii |
| | Sodii bicarb..... | grs. xii |

M. et ft. chart. No. xii.

Sig. One every two hours.

The above should be given whether the disease begins with diarrhoea or constipation. It checks the diarrhoea and also vomiting if present.

After the patient's alimentary canal has been well cleared out, the administration of intestinal anti-septics may be begun. We may begin with:

R. Saloli..... 3ii

Div. in caps. No. xxiv.

Sig. One every three hours.

Or:

R. Saloli..... 3ii

Zinci sulphocarbolat..... 3i

M. et ft. caps. No. xxiv.

Sig. One every three hours.

If the stools are very offensive, naphthalin in 5 grain doses may be given with the sulphocarbolate of zinc, thus:

R. Naphthalin..... 3ii

Zinci sulphocarbolat..... 3i

M. et ft. caps. No. xxiv.

Sig. One every three hours.

Guiacl carbonate in 5 grain doses may also be given as an intestinal antiseptic. It may be combined with salol or sulphocarbolate of zinc:

R. Guiacl carbonat..... 3ii

Zinci sulphocarbolat..... 3i

Saloli..... 3i

M. et ft. caps. No. xxiv.

Sig. One every three hours.

For the headache of the first week the ice-bag usually gives relief, but if very severe, give:

R. Kryofini..... 3ss

Sodii bromid..... 3i

Phenacetin..... 3ss

Caffein citrat..... grs. vi

M. et ft. chart. No. vi.

Sig. One every three hours till relieved.

Cold sponging, cold baths, and the cold pack control the temperature in almost all cases. It does not become necessary to give antipyretics.

Meteorism does not occur so frequently in those cases where the diet is properly regulated, but when it does occur, give the following:

R. Olei terebinth..... ʒ iss

Tinct. opii deodorat..... ʒ iii

Syr. acaciae..... q. s. ad. ʒ iii

M. Sig. One teaspoonful every three hours.

Or:

R. Olei terebinth..... ʒ iss

Olei anisi..... gtts. vi

Glycerini..... ʒ ss

Mucil. acaciae..... ʒ ss

Syr. simplic..... ʒ iss

Aquaæ..... q. s. ad. ʒ iv

M. et ft. emuls.

Sig. One teaspoonful every two hours.

High rectal enemas of two quarts of hot water containing tincture of asafoetida (ʒ iii), spirits of chloroform (ʒ i), and spirits of turpentine (ʒ ss), are of much benefit in overcoming tympany.

Cases that are constipated do better than those that have diarrhoea. Do not give cathartics to relieve constipation but use warm soapsuds enemas.

If the bowels move more than four or five times a day, it is necessary to check them. The following prescriptions are all very valuable for this condition. Use the first ones for mild cases and the last ones for severe cases of diarrhoea:

R. Acid. sulphuric. aromat..... ʒ ii

Tinct. opii..... ʒ ii

Tinct. catechu co..... ʒ iv

Aquaæ camph..... q. s. ad. ʒ iii

M. Sig. One teaspoonful every three hours or after each loose movement.

Or:

R.	Bismuth. subnitrat.....	3iv
	Tinct. opii.....	3iv
	Tinet. catechu.....	3iv
	Aquæ menth. pip.....	3iv
	Aquæ anisi.....	3iv
	Syr. acaciæ.....q. s. ad.	3iii

M. Sig. One teaspoonful every three hours.

Or:

R.	Plumb. acetat.....	grs. xxiv
	Pulv. opii.....	grs. xii
	Pulv. camphoræ.....	grs. xii

M. et ft. caps. No. xii.

Sig. One every three hours.

If vomiting occurs during typhoid fever it may be checked by the following:

R.	Cerii oxalat.....	grs. xii
	Cocain. muriat.....	gr. i
	Hydrarg. chlor. mit.....	gr. i
	Bismuth. subnitrat.....	3iss

M. et ft. chart. No. xii.

Sig. One every three hours.

For the delirium there is nothing better than persistent sponging which keeps the temperature down. If it becomes severe give $\frac{1}{6}$ grain tablet of hyoscine hydrobrom., either by mouth or hypodermically every four hours.

The patient should be constantly watched because he is very liable to sneak out of bed, and jump out of a window during the momentary absence of the nurse.

Bed-sores can in most cases be avoided by careful nursing, but if they do occur they must be kept absolutely clean, and treated according to directions under Bed-sores.

Hæmorrhage from the bowels is a very frequent complication, and must be treated exactly as given under Hæmorrhage, Intestinal.

Perforation of the bowel in this disease is the most

dreaded complication. It should be recognized easily, and operation should be performed at the earliest possible moment. It gives the patient the best chance for recovery. If operation is refused then withhold all food and give sufficient opium to paralyze intestinal peristalsis and relieve pain.

Hiccough is sometimes a very troublesome complication, it is a symptom of profound depression. It is sometimes controllable by the administration of 15 drops of spirits of camphor, 10 drops of spirits of chloroform, or $\frac{1}{2}$ grain morphine sulphate hypodermically. Pressure on the vagus may also be tried.

Phlebitis occasionally occurs in the third and fourth week of the disease. The limb should be elevated and wrapped in cotton. The patient should keep as still as possible in order not to displace the thrombus in the vein. Painting the limb with tincture of iodine is of some benefit. Above all things rubbing the limb should be avoided. For the œdema which follows phlebitis, a rubber bandage should be worn until all swelling has disappeared.

TYPHUS FEVER. (WAR, JAIL, CAMP, FAMINE, PUTRID OR SPOTTED FEVER, BLACK DEATH.)

Strict isolation and open-air treatment in tents are necessary. If treatment must be carried out in a private house or a hospital ward the most thorough ventilation must be carried on. The excreta and everything coming in contact with the patient should be thoroughly disinfected, and after recovery the patient's room and its contents should be fumigated.

The treatment is symptomatic and much the same as in typhoid fever. Rest, good nursing and a diet of fluids (plain milk, milk punch with egg or brandy) are of the utmost importance. Cardiac stimulants are more often required than in typhoid and should consist of whisky, digitalis or strychnine, or in extreme cases of hypodermic injections of ether or

camphor. The fever is best controlled by hydrotherapy even to the extent of six cold baths daily. Cold sponging is also useful.

The vomiting may often be controlled by an effervescent draught with or without hydrocyanic acid (one or two drops). In other cases relief may be obtained by the administration of small and frequent doses (one minim) of vin. ipecac. or by sinapisms to the epigastrium.

The severe pains may have to be relieved by morphine or opium.

ULCERS.

Treat the cause, e. g., varicose veins, syphilis, tubercle, gout. Insist upon absolute rest in bed.

The treatment is both constitutional and local. The constitutional treatment consists in giving tonics if necessary and treating the underlying cause.

Local treatment. First reduce the inflammation in and near the ulcer by a moist dressing of a one per cent aqueous solution of ichthyol, or a solution containing one part of salicylic acid and five parts boric acid to 500 parts of water. These solutions should be applied on a thick gauze compress and kept moist and cool.

Next the ulcer should be cleansed by washing its surface with a solution of bichloride of mercury (1 in 1,000) or carbolic acid (1 to 60), or with hydrogen peroxide, or:

- | | |
|-------------------------------|---------|
| R. Liquoris formaldehydi..... | m. viii |
| Aquæ hydrogeni dioxidi..... | 3xvi |

M. Sig. Use locally as a wash twice a day.

Sloughs may be destroyed and removed by cauterization with a solid stick of nitrate of silver and the application afterwards of naphthaline powder.

Next the granulations should be stimulated, if indolent, by the application of antiseptic powders, solutions, or ointments. A very popular application is Balsam

of Peru, which has a powerful effect in increasing the growth of granulations:

R.	Balsami peruviani.....	5iv
	Tinct. benzoin. co.....	5ii
	Petrolati.....q. s. ad.	5ii

M. Sig. Spread liberally on surgeon's lint and apply. Ointments are usually contra-indicated where there is a very profuse discharge, as they prevent its absorption by the dressing.

In chronic ulcers of the leg, and especially varicose ulcers, a cure is impossible until the congestion is relieved and a proper blood-supply is established. To do this a muslin or flannel bandage should be applied properly over the dressing, and reach from the toes to the knee.

UMBILICAL CORD, CARE OF.

After the cord has ceased to pulsate it should be tied two inches from the child's body with thick aseptic silk. Use the following as a dusting powder:

R.	Ac. salicyl.....	5ii
	Ac. boric.....	5vi

M. Sig. Use once a day.

Envelop the cord in gauze and lay it with the cut end pointing upwards. Do not envelop it in cotton. Should granulations still be present after the cord drops off apply a little alum or silver nitrate to them.

URÆMIA.

The treatment of this serious condition may be summed up in the word "elimination." The kidneys have ceased to act, therefore we must rely on the bowels and skin. If we find the patient in convulsions or coma, the first thing to do is to administer croton oil in a two-drop dose, thus:

R.	Ol. tigliai.....	gtts. ii
	Glycerini.....	gtts. x

M. Sig. Drop this dose on the back of the tongue

Elaterin may be given, thus:

R.	Elaterii.....	gr. ss
	Aquæ.....	5ii

M. Sig. One teaspoonful at once. Repeat in half an hour if necessary.

The skin should be stimulated by wrapping up the patient in a hot pack. The skin can also be stimulated by a hypodermic injection of pilocarpine muriate ($\frac{1}{2}$ grain). Repeat in one hour if necessary.

If the patient is not feeble, 10 to 20 ounces of blood should be withdrawn.

Chloral hydrate is of importance, one drachm in an ounce of water should be injected into the rectum. Chloroform may be used to control the convulsions. If the convulsions persist, give half a grain of morphine sulphate hypodermically. Repeat in half an hour if necessary to stop the convulsions.

URTICARIA (See Hives).

UVULA, RELAXED.

Look for and remove its causes: excessive eating, drinking, and smoking, exposure to night air, living in crowded and ill-ventilated rooms, and struma in children. Patient should live in a dry or bracing climate. Indigestion and constipation should be corrected if present.

Local treatment. Mild astringent sprays or insufflations. Painting with the following solution is frequently useful:

R. Tinct. iodin.

Glycerin.....	aa	3i
---------------	----	----

M. Sig. Paint throat every two hours.

If local treatment does not reduce the hypertrophy of the uvula, part of it should be removed.

VAGINISMUS.

Absolute rest of genital organs and prohibition of coitus. Relieve hyperesthesia by hot sitz-baths or by the application of a solution (10 grains to the ounce) of nitrate of silver or ointment of belladonna.

Dilate the vagina well with the thumbs or speculum and make the following application:

R. Argenti nitratis..... grs. xxx
Aqua..... 3i

M. Sig. Apply to hyperæsthetic or eroded spots.
The following suppository may be given:

R. Cocainæ..... grs. vi
Iodoformi..... 3i
Extracti belladonn. folior. grs. iii
Olei theobrom..... 3iii

M. ft. suppositoria No. vi.

Sig. Insert one into vagina at night.

If these means fail dilate the vagina under an anæsthetic and remove sources of irritation such as urethral caruncles, irritable carunculæ myrtiformes, and treat any ulcers which may be present.

The following internal treatment is sometimes beneficial, when the vaginismus is accompanied with severe pain:

R. Morphine sulphat..... gr. i
Atropin. sulphat..... gr. $\frac{1}{25}$
Elixir. simplic..... 3i

M. Sig. Two teaspoonfuls at bedtime, or when suffering.

In some cases it may be necessary to benumb the parts by the application of cocaine and then introduce a dilator. The dilator should be retained for an hour night and morning. Its presence blunts the sensibility. Day by day an instrument of larger size may be substituted until the vagina is overstretched.

VALVULAR DISEASE OF HEART (See Endocarditis, Chronic).

VARICELLA. (CHICKEN POX.).

This is the mildest of all the acute contagious diseases. At the onset of the disease put the child to bed for several days, restrict the diet, and give a mild laxative as:

R	Hydrarg. chlor. mit.....	grs. ii
	Sacchar. lactis.....	grs. xii
	Pulv. rhei.....	grs. vi
M.	et ft. chart. No. xii.	

Sig. One every three hours.

The itching of the skin may be allayed by applying carbolized vaseline or by sponging with a weak solution of carbolic acid.

As soon as crusting takes place the following ointment is useful:

R,	Ac. borici.....	grs. xx
	Zinc. oxid.....	3i
	Bismuth. subnitrat.....	3ss
	Lanolin.....	3i
	Ungt. petrolat.....q. s. ad.	3ii

M. Sig. Use twice a day.

If fever is present give to a child 2 to 10 years old:

R,	Potass. citrat.....	grs. xii
	Potass. acetat.....	grs. vi
	Aquæ.....	3i
	Elix. digestiv. co. N. F.....q. s. ad.	3ii

M. Sig. One teaspoonful every three hours.

Prophylaxis. The disease is transmitted as long as the crusts are present, therefore isolation should not be discontinued until they have fallen off. Isolation should be enforced in school.

VARICOSE VEINS.

Preventive. The patient should avoid occupations (e. g., waiter, etc.) and clothing which interfere with the venous return. Elastic garters especially should be avoided. When the patient is sitting down his feet should be elevated on a chair opposite. Constipation should be avoided.

Treatment. The general health should be attended to. An elastic bandage or elastic stocking should be applied. A cheap, cleanly and most satisfactory bandage may be made from pure coarse white flannel. This is cut on the bias in strips about three

inches wide and a sufficient number of them are sewed together to make a bandage about seven yards long. The bandage should be applied before the patient gets up in the morning. A bandage of this kind can be washed and ironed when soiled and will last a long time.

If the patient wishes to apply for a position as policeman or fireman, or if he desires to join the army or navy, he should be advised to have the veins operated on.

VARICOSE ULCER.

These are among the most difficult ulcers to treat. Treatment should consist of: 1st—the relief of inflammation around the ulcer; 2d—the disinfection of the ulcer; 3d—the stimulation of the granulations; 4th—the re-establishment of the circulation and the prevention of venous stasis; and 5th—the stimulation of the epithelium at the edges of the ulcer.

Moist antiseptic dressings should be used at first to reduce the surrounding inflammation. An excellent dressing for this purpose is Thiersch's solution, the formula of which is:

R.	Acid. salicyl	1 part
	Acid. boric.....	5 parts
	Aqua.....	500 parts

M. Sig. Apply frequently on a thick piece of gauze.

The dead sloughs on the surface of the ulcer should be removed, and the ulcer cleansed with a one per cent solution of creolin. Bichloride of mercury (1 to 1,000) answers the same purpose. It is best to use the creolin and bichloride solution hot.

Granulation of the wound may be encouraged by the application of the following powders: iodoform, aristol, bismuth subnitrate, orthoform, etc.

Balsam of Peru, ichthyol, myrrh, silver nitrate may be used instead.

Ointments are preferred by some, e. g., ungt. resorcin co. (N. F.), Lassar's paste or ungt. salicylic acid.

Powders act best when the secretions are profuse and the ulcers small.

Ointments should not be used where the secretions are profuse.

The following wash is an excellent one to encourage cicatrisation:

R.	Zinci sulphat.....	grs. xx
	Tinct. lavendulæ co.....	3ss
	Aquaæ destillat.....	3viii

M. Sig. Apply twice daily.

The following ointment should be tried in stubborn cases:

R.	Camphoræ.....	3ss
	Zinci oxid.....	3viiss
	Petrolati.....q. s. ad.	3iv

M. Sig. Use twice a day.

Venous congestion of the limb must be removed before any line of treatment is successful. Usually a muslin or flannel bandage extending from the toes to the knee is all that is necessary.

The authors have frequently had splendid results from the use of Unna's paste. The ulcer is thoroughly cleaned, powdered with iodoform, and gauze bandages are applied beginning at the toes and extending to the knee. Between each layer of bandage Unna's paste is applied with a brush. This dressing is allowed to remain on for several weeks. Frequently on removing the dressing it is found that the ulcer has entirely healed. If the ulcer is discharging profusely, windows may be cut in the dressing, and the ulcer treated daily. Workingmen who have to be on their feet all day, are cured by this method of treatment without missing a day's work. The formula for Unna's paste is:

R. Glycerini.

Aquaæ.....āā 10 parts

Gelatin.

Zinc. oxid.....āā 4 parts

M. Sig. Warm before using.

In severe cases of ulcer it is best to put patient to bed with the leg elevated.

If the ulcer refuses to heal then it becomes necessary to operate. The veins may be cut and tied in several places or the internal saphenous vein may be tied. If an ulcer is so large that it cannot heal over, then it ought to be thoroughly curetted and skin transplanted over its surface.

VERTIGO. (DIZZINESS.)

Carefully and thoroughly examine the condition of the ears and remove the cause as far as possible. Remove any accumulation of wax, and treat any disease of the pharynx or Eustachian tube. Examine the eyes for any errors of refraction and correct them if found.

Counter-irritation over the mastoid process and bromides internally are often of value in lessening the morbid sensitiveness. Galvanization with the anode over the ear and the cathode to the neck are also beneficial.

Treat any underlying diseases such as syphilis, gout, etc. To gouty patients give salicylates, colchicum and the iodides, and in syphilis employ the usual anti-syphilitic remedies.

In bilious and plethoric vertigo give the following:

- | | | |
|----|--------------------------|---------|
| R. | Hydrarg. chlor. mit..... | grs. ii |
| | Pulv. jalapi co..... | grs. x |

M. ft. chart. No. vi.

Sig. A powder every half hour.

In aural vertigo (Meniere's disease) give:

- | | | |
|----|--------------------------|------|
| R. | Potass. bromidi..... | 3iv |
| | Syr. aurant. cortic..... | 3iv |
| | Aquæ.....q. s. ad. | 3iii |

M. Sig. One teaspoonful three times a day.

Or:

- | | | |
|----|-----------------------------|----|
| R. | Spirit. glycer. nitrat..... | 3i |
|----|-----------------------------|----|

Sig. One drop in water three times a day to be gradually increased until temporal headache is produced.

In cardiac vertigo give:

R.	Strychnin. sulphat.....	gr. i
	Extract. digital	grs. vi
	Extract. cinchonæ.....	3i

M. ft. pil. No. xxx.

Sig. One pill after each meal.

For gastric vertigo give:

R	Sodii bicarb.....	3iv
	Tinct. nuc. vomic.....	3ii
	Spts. ammon. aromat.....	3iv
	Aquaë menth. virid..... q. s. ad.	3iii

M. Sig Shake, and take one teaspoonful in water after meals.

VOMITING.

Remove cause, e. g., gastritis, intestinal, renal or biliary colic, peritonitis, intestinal obstruction, appendicitis, hernia, kidney disease, cerebral tumor.

Regulate the diet, apply a mustard poultice over the epigastric region, lavage the stomach, and give an enema to unload the rectum.

Drugs used: Sodium bicarbonate, dilute hydrocyanic acid, cerium oxalate, ammonium bromide, bismuth subnitrate, chloral hydrate, calomel, sips of champagne, morphine and cocaine.

When due to acute gastritis give:

R.	Bismuth. subnitr.....	3iii
	Hydrocyan. acid. dil.....	m. xxxii
	Morph. sulph.....	gr. iss
	Aq. menth. pip.....	3i
	Syr. acac..... q. s. ad.	3ii

M. Sig. One teaspoonful every two hours until vomiting ceases.

The following prescription is also of value in vomiting of reflex origin especially in that of pregnancy:

R.	Hydrarg. chlor. mit.....	grs. ii
	Cerii oxalat.....	grs. xviii
	Bismuth. subnitrat.....	3ii
	Ingluvin.....	3i
	Taka diastase.....	3ss

M. et ft. chartul. No. xii.

Sig. One every three hours.

In pregnancy one immediately before each meal.

WART. (VERRUCA.)

The commonest caustics used in the eradication of warts are: glacial acetic acid, silver nitrate crayon, chromium trioxide, etc.

A common prescription is:

R. Liq. hydrarg. nitrat..... 3ii

Sig. Apply locally with match stick.

Or:

R. Acid. nitric..... 3ii

Sig. Apply every three days with probe. This should not be given to patient.

Another method is curettage, then cauterization of the oozing base with a silver nitrate crayon. Electrolysis is also successful, the base of the wart being transfixated with a needle connected with the battery. Radiotherapy has also been successfully applied, especially to the warts of the aged.

Magnesium sulphate given internally in ten grain doses has recently proved to be of benefit.

The following may be given to the patient to apply once a day:

R. Chloral. hydrat.

Acid. acetic..... aa 3iss

Acid. salicylic.

Ether..... aa 5i

Collodion..... 5iv

M. Sig. Apply to warts once a day

WASHERMAN'S ITCH (See Dhobie Itch).

WATERBRASH (See Heartburn).

WATER-ITCH. (COOLIE-ITCH.)

Prophylaxis. Feet and legs of coolies should be painted every morning with tar, and then they should

walk through fine sand or sawdust which sticks to the tar and forms an impermeable covering.

Treatment. Bathe the feet daily in warm carbolic lotion (1 in 40), then open the vesicles and dust on boroiodoform powder.

WEIR MITCHELL REST CURE.

Used especially in hysteria and neurasthenia. The patient is removed from her family and all sympathizing friends and given into the care of a competent nurse. She is kept absolutely quiet in bed and not allowed to read or, at first, even to feed herself. Massage and electric treatment (a slowly interrupted Faradic current) are given once or even twice daily for gradually lengthening periods, but are omitted during the menstrual epochs. Voluntary exercise is forbidden so that the patient has no excuse for feeling tired. The diet consists at first of skimmed milk or milk mixed with half its bulk of oatmeal jelly. Four to six ounces of this are given every two hours and rapidly increased until the patient takes two quarts daily. Solid meals are then gradually added, e. g., a lunch of chops or raw oysters with bread and butter and a breakfast of eggs, roll and a cup of cocoa. Soon the patient is taking a large quantity of nourishment and in the absence of all other calls upon her nervous strength, digests it perfectly well

The patient should be given a sponge bath daily. In from four to six weeks the patient is allowed to sit up, a few moments at first then for longer periods until she is allowed to drive out and to take short walks. A schedule of the treatment should be made for each day, the hours for feeding, massage, electricity, exercise, rest, etc., being fixed. The interval between the massage and the electric treatment should be three or four hours.

This treatment is specially adapted to thin, poorly nourished patients.

WET-NURSE, CHOICE OF.

Examine the child of the wet-nurse, which should be about the same age as the infant she is to feed, for evidences of syphilis. The wet nurse herself should be free from any communicable disease such as syphilis, tuberculosis or gonorrhea, her nipples should be normal in development. She should have a good quantity of milk, but those with too large and flabby breasts should not be selected. Supervise carefully the diet of the wet-nurse and guard against her over-indulgence in malt liquors, alcoholic stimulants and opiates. Her moral character should be good.

WHOOPING COUGH. (PERTUSSIS.)

The patient should be isolated till the cough ceases and all articles used by him should be disinfected. In warm weather he should have plenty of fresh air and sunlight, but should be protected from the inclemency of bad weather. After children have passed through an attack of whooping cough they should not be exposed to raw chilling winds until the sensitiveness of their mucous membrane has disappeared. A tight abdominal binder should be put on in all cases.

The diet should be light and nutritious. If fever is present the patient should rest in bed.

Bromoform is one of the most effectual remedies in this disease. It may be given in one drop doses on lump sugar to a child four times a day. Or give for a child one year old:

R.	Bromoform.....	m. xxiv
	Spt. vin. rect.....	3i
	Syr. lactucar.....	3iii
	Syr. hypophosph. ammon.....	5iss
	Syr. acaci.....q. s. ad.	3iii

M. Sig. Shake well. One teaspoonful three or four times a day.

Tincture of belladonna may be substituted for the bromoform in the above prescription.

Antipyrine is also useful but it should not be given if heart or severe pulmonary complications are present. When the paroxysms are specially marked it should be combined with sodium bromide or heroin.

For a child eight months old give:

R.	Antipyrin.....	grs. xii
	Sod. bromid.....	3i
	Aquaæ.....	3ii
	Elix. tarax. co.....	q. s. ad. 3iii
M. Sig.	One teaspoonful every two hours.	

For a child fifteen months old give:

R.	Antipyrin.....	grs. xxiv
	Sod. bromid.....	3i
	Aquaæ.....	3ii
	Elix. tarax. co.....	q. s. ad. 3iii
M. Sig.	One teaspoonful every two hours.	

For a child two to four years give:

R.	Antipyrin.....	grs. lxiv
	Sod. brom.....	grs. lxxii
	Aquaæ.....	3ii
	Elix. tarax. co.....	q. s. ad. 3iii
M. Sig.	One teaspoonful every two hours.	

Local treatment with sprays, inhalations, insufflations of powders and direct applications to the larynx may be prescribed. As an inhalant give:

R.	Ol. eucalypti.	
	Ol. terebinth.....	āā 3ii
	Spt. rectific.....	5ii

M. Sig. As an inhalation half an hour before each meal and at bedtime.

A very useful formula for inhalation is the following:

R.	Ol. eucalypt.....	3iv
	Tinct. benzoin. comp.....	q. s. ad. 3ii

M. Sig. One teaspoonful in one pint of boiling water for inhalation three times a day.

In severe cases when the coughing paroxysms are very violent give:

R. Chloroformi..... ʒ iii

Pone in phialas No. xxiv.

Sig. Pour the contents of a phial upon back of attendant's hand and allow child to inhale at beginning of paroxysmal cough.

The following nasal and pharyngeal spray may be prescribed for a child eight to ten years old:

R. Resorcinolis..... grs. x

Aquæ..... q. s. ad. ʒ iv

M. Sig. Use as nasal and pharyngeal spray several times a day.

During convalescence great care is necessary because of the danger of pneumonia. Change of air is recommended and sea air is of especial benefit. Tonics such as iron, quinine, and cod liver oil are very useful at this period.

WOOLSORTER'S DISEASE (See Anthrax).

WRITER'S CRAMP.

Attend to the patient's general hygienic condition; fresh air, good food and tonics like iron, arsenic, strychnine, and cod liver oil are of benefit.

Supplement this general treatment for the nervous symptoms with special treatment. Rest to the hand is absolutely necessary; the patient may learn to write with the other hand. Special apparatus may be used consisting of mechanical devices to use another set of muscles, or the old in different co-ordination. Forearm splints with a pen attached to the end, pens with thick handles, a penholder with supports for the fingers, etc.

Systematic exercises of the fingers with passive manipulation and massage are often of great service. Wolff's method consists in moving the fingers, hands, forearms, and upper arms in every possible direction making an effort to contract forcibly each muscle from six to twelve times.

A galvanic current of about four milliamperes applied every day for from five to ten minutes and the treatment continued for months is often of benefit.

Prophylaxis. If symptoms of approaching writer's cramp appear, the act of writing should be made as comfortable as possible by using an easy-writing pen, a suitable penholder, smooth paper, comfortable writing desk and chair and a proper writing position. The pen should be held lightly and grasped with as little force as possible. The manner in which the penholder is held by the fingers should be changed so as to bring new sets of muscles into play. Holding the pen between the first and second fingers often gives relief. The motions of writing should be carried on with the entire hand and forearm rather than with the fingers alone.

Perhaps the best prophylactic treatment of all would be for the patient to give up penmanship altogether and learn typewriting.

X-RAYS, EMPLOYMENT OF.

These rays are valuable as a therapeutic agent in certain affections of the skin (see **Skin Diseases, Electric Treatment of**), in adenitis (especially tubercular), in goiter, enlarged prostate, for the enlarged spleen and glands of Hodgkin's disease, for sarcomas, rodent ulcer, cancer of the breast, for the enlarged spleen of leukæmia, and also as an analgesic.

When used for superficial affections a tube that gives off a large proportion of easily absorbed rays should be used (see **Skin Diseases, Electric Treatment of**). When used for deep-seated diseases the rays of low penetrating power should be excluded so that the length of exposure necessary to affect the diseased tissues deep down, may be given without burning the skin by the easily absorbable rays. For this purpose a tube of high resistance, giving off a large proportion of rays of high penetrating power, should be used. An aluminum plate should be inter-

posed between the tube and the patient. This tube should be of such a thickness that it will absorb most of the rays which would otherwise be absorbed by the tissues intervening between the surface and the site of the disease.

The amount of light necessary is not the same for all deep-seated diseases. Sarcomas, for example, require less light than carcinomas. In sarcomas, Hodgkin's disease and certain other affections, treatment should be given at longer intervals than in other growths, because symptoms of toxæmia may follow a too energetic use of the rays, due to the large amount of the products of decomposition set free at one time into the circulation by the action of the rays on the diseased tissues. However, if opportunities for drainage exist, less absorption will take place.

YAWS.

Compulsory segregation of infected persons.

Clean patient with soap and plenty of warm water.
Avoid chills.

Locally, disinfectant solutions or lotions of boric or carbolic acids, or of corrosive sublimate.

Give nourishing food and medicinal tonics. Internally iron, arsenic, iodide of potassium and mercury.

During convalescence iron and arsenic should be given for a long period.

YELLOW FEVER, PROPHYLAXIS OF.

Prevent the multiplication of stegomyia by destroying its breeding places. Drain collections of water especially those in the low-lying districts of seaports. Fill up inequalities of the ground so that rain-water may run off easily. Ponds which cannot be drained should have petroleum spread over their surface to destroy the larvæ of stegomyia.

If a ship is in an infected port it should anchor to the windward of infected ships and at as great a

distance from them as possible. Since the young stegomyias which bite by day are seldom infected, crew and passengers may be allowed restricted shore-leave during the day, but never after sunset. Cover tanks, barrels, and cisterns with gauze. A ship that has had yellow fever on board should not be allowed to approach near the shore or other vessels until it has been thoroughly disinfected by introducing sulphur dioxide into the hold. A pound and a half of sulphur should be allowed for every 1,000 cubic feet of space.

When a case of yellow fever does occur, successful prophylaxis depends on the fact that the stegomyia fasciata becomes infected by biting the yellow fever patient at any time during the first three days of the disease, while the insect becomes infecting twelve days after it has bitten the yellow fever patient. When a case breaks out on board ship the patient should be brought ashore under a mosquito bar to a mosquito-proof ward in a hospital. If the patient be treated either at home or on board ship a room should be fumigated to destroy any mosquitoes and then screened before he is put in it.

If the patient has infected any mosquitoes before he has come under observation, fumigate the patient's house as well as the houses immediately adjoining.

YELLOW FEVER.

Remove patient from focus of infection and protect him from mosquitoes which might spread the disease to others.

At outset if no albumin is found in the urine give 20 grains quinine, and 20 grains calomel, followed by a saline purge. Apply ice to the head.

If albumin is found in the urine, clear out bowels by an enema. Maintain action of kidneys by effervescent saline drinks such as Vichy water. If the urine is suppressed, dry cupping over kidneys and

hot fomentations, hot packs, or mustard plaster are indicated.

For the troublesome vomiting, an ice-bag should be applied to pit of stomach and pieces of ice frequently swallowed. If a feeble irregular pulse points to heart failure give strychnine hypodermically.

Diet. No food first two or three days, then milk and lime water, then beef juice or beef jelly, or enemata of peptonized milk with brandy. Iced champagne or whisky.

ZINC SALTS. (WHITE VITRIOL, BURNETT'S DISINFECTING FLUID) POISONING BY.

Do not use the stomach tube or give an emetic, because of the corrosion of the membranes, but give large draughts of white of egg and milk. Give also large quantities of sodium carbonate dissolved in warm water, also demulcents and tannic acid or strong tea. For the pain give a hypodermic injection of morphine ($\frac{1}{3}$ grain).

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